Mathematics – Written Calculation Policy

This policy has been largely adapted from the White Rose Maths Hub Calculation Policy with further material added.
It is a working document and will be revised and amended as necessary.

Teaching for Mastery in Mathematics

This calculation policy has been written in line with the programmes of study taken from the revised National Curriculum for Mathematics (2014). It provides guidance on appropriate calculation methods and progression. The policy aims to ensure consistency and progression in our approach to calculation throughout school.
At Newfield Park, we are moving towards teaching for Mastery in Maths. True mastery aims to develop all children's mathematical understanding at the same pace. As much as possible, children should be accessing the same learning. Differentiation should primarily be through support, scaffolding and deepening, not through task.

What is mastery?

'Mastering maths means pupils acquiring a deep, long-term, secure and adaptable understanding of the subject.
The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths.' NCETM

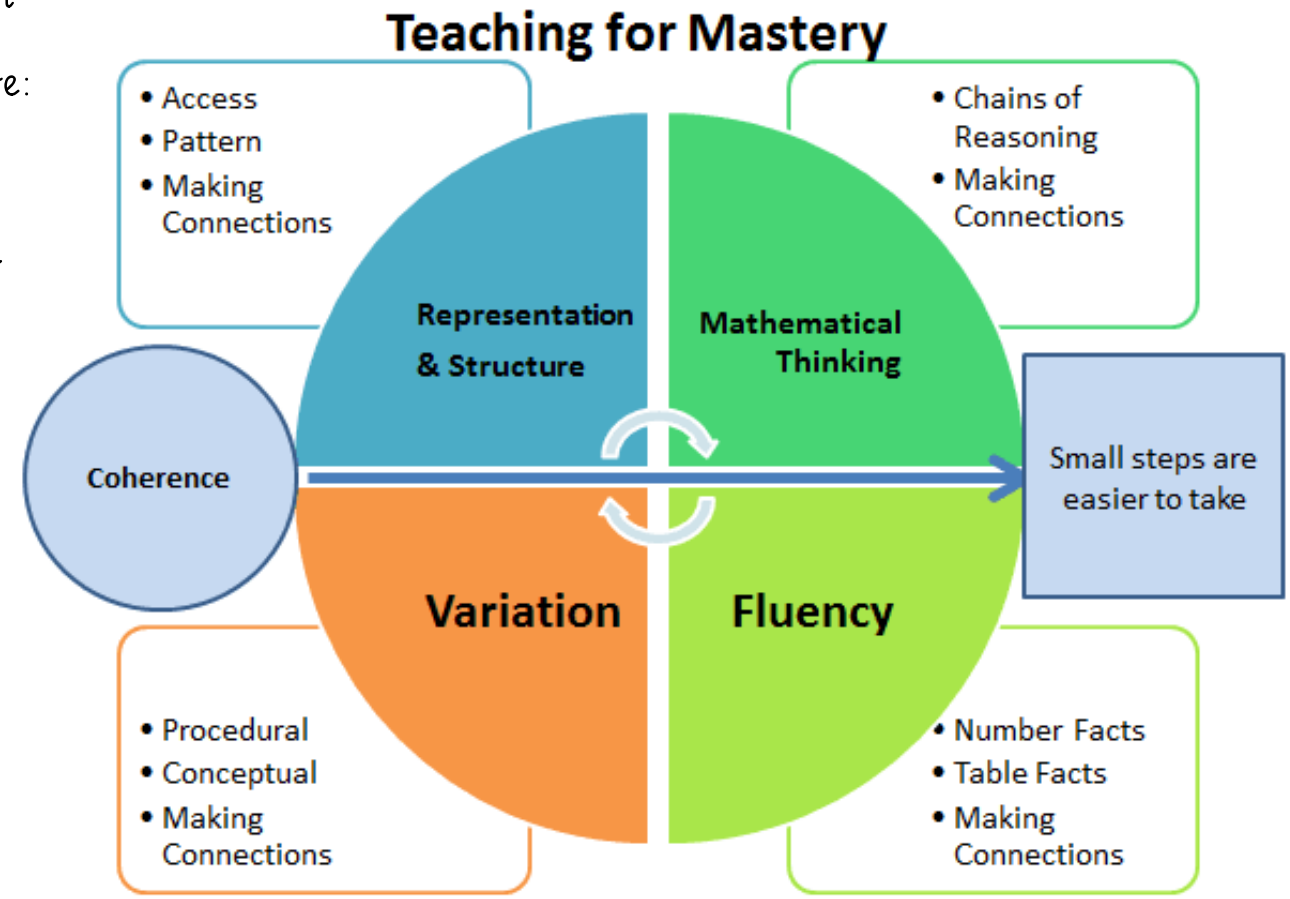
CPA in teaching

Conceptual, Pictorial and Abstract (CPA) is an approach to be used with the whole class and teachers should promote each area as equally valid. This is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in children. A CPA approach uses physical and visual aids to build a child's understanding of abstract topics. CPA concepts should not be confused as differentiation for lower, middle, higher attaining children nor should manipulatives be presented as a resource to support the less confident or lower attaining pupils.

The Five Big Ideas in Teaching for Mastery

The Five Big Ideas drawn from research that underpin teaching for Mastery are:

- Coherence
- Representation and Structure
- Mathematical thinking
- Fluency
- Variation



Progression in Calculations

Addition

Nursery

Before addition can be introduced, children need to have a secure knowledge of number. In Nursery, children are introduced to the concept of counting, number order and number recognition through practical activities and games. This is taught through child initiated games, number songs and rhymes. Children also learn how to count 1-1 (pointing to each object as they count) and that anything can be counted, for example, claps, steps and jumps. This is reinforced by opportunities provided in the outdoor area for the children to count e.g. counting building blocks, twigs etc.

Reception

By the time children reach Reception, they begin to build on the concepts taught in Nursery. Working through the number objectives in the 40 – 60 month band of Development Matters. Children need to have a secure knowledge of number in order to begin addition. Children are then introduced to the concept of addition through practical games and activities. This is reinforced by opportunities provided during choosing to learn time, children explore addition using a range of practical equipment including numicon and number lines. During lessons, children build on their previous knowledge of 'more' by learning that adding two groups of objects together gives them a larger number (more objects). Adults model additional vocabulary supported by age appropriate definitions and support children in recording their addition sums in the written form on whiteboards and worksheets.

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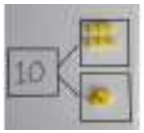
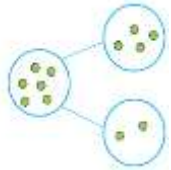
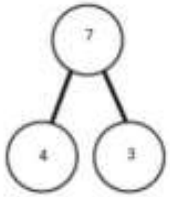
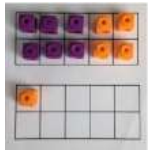
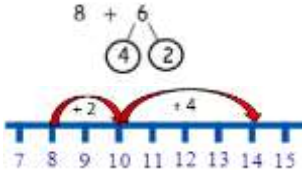
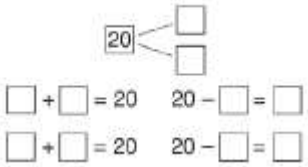
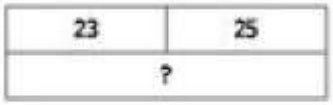
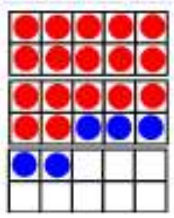
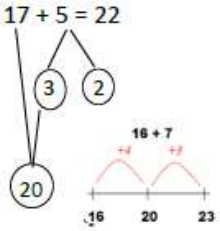
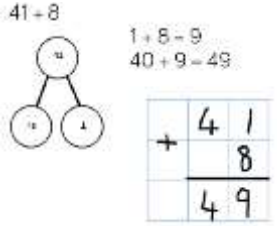
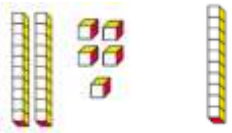
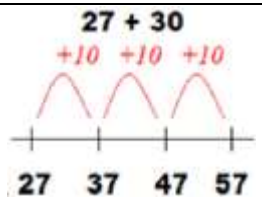
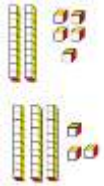
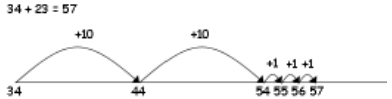
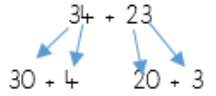
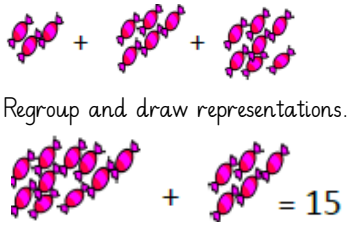
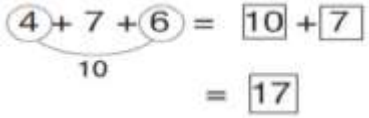
Addition (EYFS, Year 1 & 2)

Objective/Strategy	Concrete	Pictorial	Abstract
Calculate the total when 2 sets are combined.	    Use cubes to add 2 numbers together as a group or in a bar. Part whole model	Use pictures to add together 2 numbers.   Represent the 2 sets in a part part whole model.	4 + 3= 7 3 + 4= 7 7= 4+ 3 Four is a part, three is a part and the whole is seven. 
Starting at the larger number and counting on.	  Start on the larger number count on in 1's. Use the bead string to count on the smaller number 1 bead at a time.	 8 + 4= Use a number line with marked intervals to add and subtract, by counting on and back in 1's.	4 + 8= Place the larger number in your head and count on the smaller number to find the answer.
Regrouping to make 10. *This is an essential skill to help children with column addition later on.*	 9 + 3= 12  Start with the larger number and use the smaller number to make 10. 6 + 5= 11	Use pictures or a number line. Regroup or partition the smaller number to make 10.  	7 + 4= Visualise partitioning the smaller number. If I am on 7, how many more would I need to make 10? How many more do I add on now?

	Use known number facts Part part whole	 Children explore different ways of making numbers within 20.		
	Bar model	 3 + 4 = 7	 7 + 3 = 10	 23 + 25 = 48
	Adding multiples of ten.	30 + 20= 50   20 + 10 = 30 Model using base 10 and numicon.	 Use representations for base 10. 3 tens + 5 tens= _____ tens 30 + 50= _____	30 + 20= 50 70= 50 + 20 40 + □ = 60
	Adding a 2digit number and ones.	 17 + 5= 22 Use the tens frame to make the magic ten. Explore patterns 17 + 5= 22 27 + 5= 32	 Use part whole model and a number line to model.	

	Adding a 2 digit number and tens.	 Explore that the ones digit does not change.		27 + 10 = 37 27 + 20 = 47 27 + ☐ = 57
	Adding a two 2 digit numbers.	 25 + 33= Model using base 10 or numicon.	Children use knowledge of partitioning to support calculation. 	 30 + 20 = 50 4 + 3 = 7 50 + 7 = 57
	Adding three 1 digit numbers.	 Combine to make 10 if possible, or bridge 10 then add third digit.		

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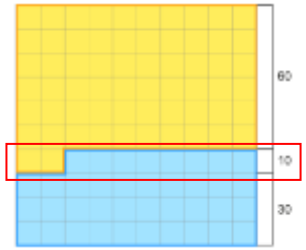
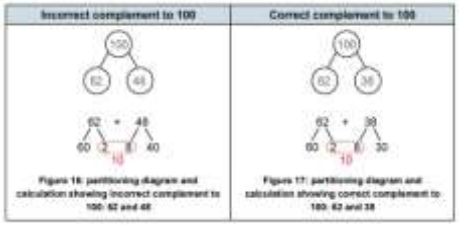
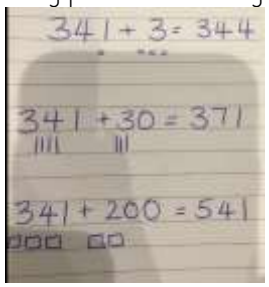
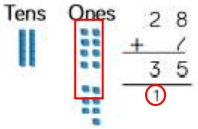
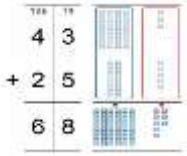
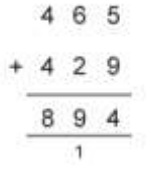
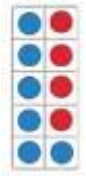
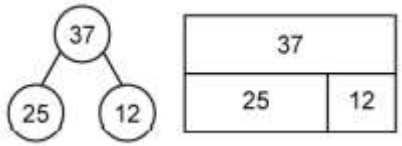
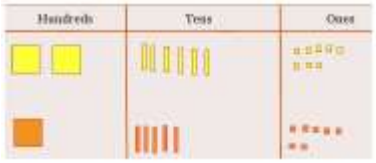
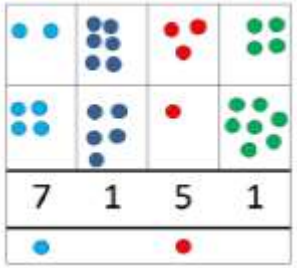
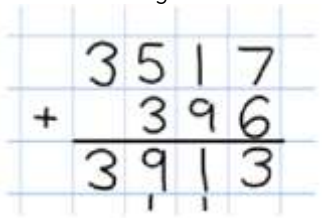
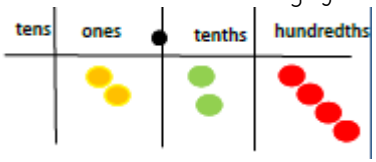
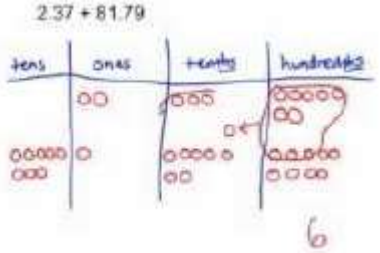
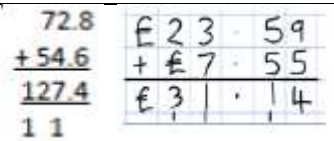
	Objective/Strategy	Concrete	Pictorial	Abstract
Addition Y3	Calculate complements to 100.	Use Diennes rods to demonstrate 10s and how one 10 is regrouped into 1s 	To use par-part whole model to represent compliments. 	Number bond missing number calculations. Eg: 34 + ____ = 100 Explain the mistake calculations Eg: 43 + 57 =100
	Can add numbers mentally including: *a 3-digit number and ones, a 3-digit number and tens, a 3-digit number and hundreds*	Use of base 10 and place value counters to develop understanding of addition. Using 100 squares to support initial additions.	Using pictures or drawings to support addition 	Complete additions mentally. Eg: 246 + 2 246 + 20 246 + 200
	Add up to three-digit numbers using columnar methods	Using base 10 to explore regrouping  Regroup ten 1s into a 10.	Column addition with no regrouping: 	Complete column addition of 3 digit numbers. Regrouping in column addition 

			Column addition with regroup.  	
	Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.		To draw models to represent the relationship between: 25 12 37  Using bar models to create calculations: 	Using addition to check subtraction:  Missing number calculations. If you know: 25 + 12 = 37 How can this help to calculate 37 - 12? What other calculations could you write?

Addition Years 4–6	Objective/Strategy	Concrete	Pictorial	Abstract
	Y4—add numbers with up to 4 digits	Children continue to use Dienes or pv counters to add, exchanging ten ones for a ten and ten tens for a hundred and ten hundreds for a thousand. 	Draw representations using pv grid. 	Continue from previous work to carry hundreds as well as tens. Relate to money and measures. 
	Y5—add numbers with more than 4 digits. *Add decimals with 2 decimal places, including money.*	As year 4. Introduce decimal place value counters and model exchange for addition. 		
	Y6—add several numbers of increasing complexity *Including adding money, measure and decimals with different numbers of decimal points.*	As Y5	As Y5	Insert zeros for place holders. 

Progression in Calculations

Subtraction

Nursery

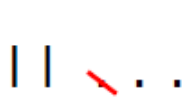
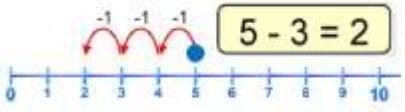
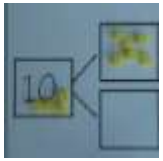
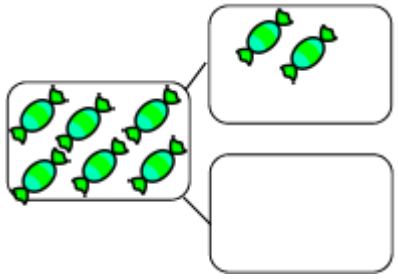
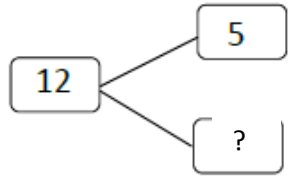
Before subtraction is introduced, children need to have a secure knowledge of number. In Nursery, children begin with the concept of counting backwards. This is taught through child initiated games, this can be through counting songs and running races (children shouting "5, 4,3, 2, 1, 0 - GO!").

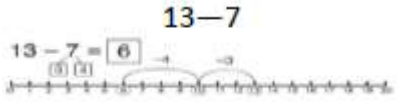
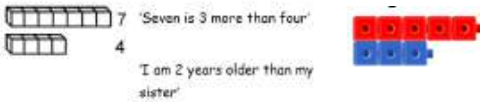
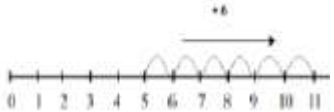
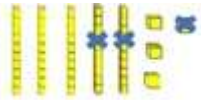
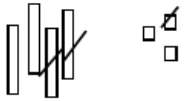
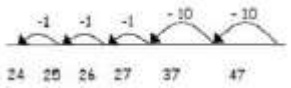
Reception

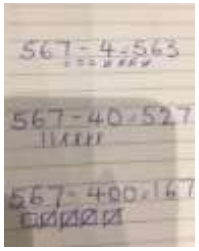
Just like addition, children will need to have a secure knowledge of number before subtraction can be introduced. Children build on the concepts taught in Nursery through practical activities and games.

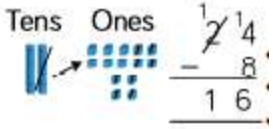
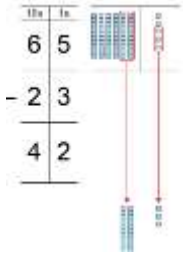
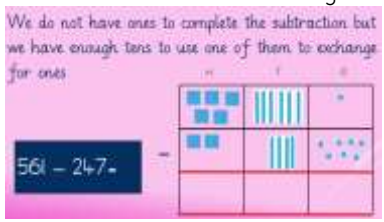
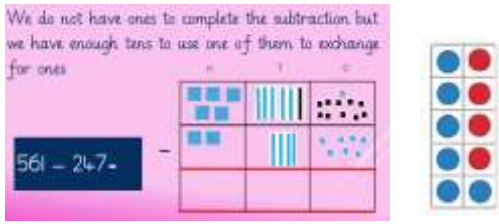
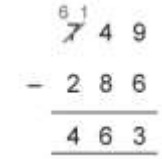
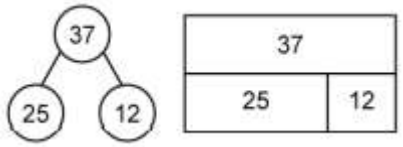
Children act out subtractions to physically subtract a number of objects from a group. Within lessons, children build on their previous knowledge of 'less' by learning that subtracting means taking away a certain number of objects from a group (leaving them with less objects).

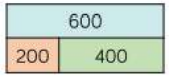
Subtraction (EYFS, Year 1 & 2))

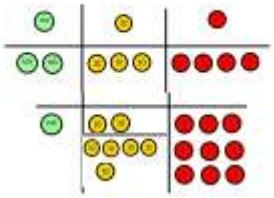
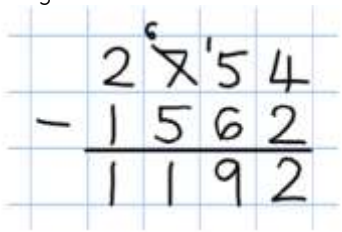
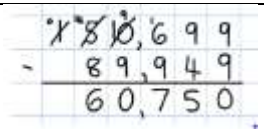
Objective/Strategy	Concrete	Pictorial	Abstract
Taking away ones	 Use physical objects, counters, cubes etc to show how objects can be taken away.	 5 - 3=  Cross out drawn objects or images to show what has been taken away.	9 – 2= 7 15 – 3= 12 There are 14 apples in a shop. One apple is eaten. How many are left?
Counting back	  Use bead strings or counters. Move objects away from the group counting backwards.	 Start on the bigger number and count backwards in jumps of ones using a number line.	Put 15 in your head and count back 3.What number are you at? Use your fingers to help you.
Represent and use number bonds and related subtraction facts within 20 **Part-Part whole model**	  If 10 is the whole and 6 is one of the parts. What is the other part? Make the link to addition. Use the model to show the inverse.	 Use pictorial representations to show the part.	 Move onto using numbers within the part-part whole model. Use the model with numbers to explore finding the answers to missing number problems. *I made 12 buns for the cake sale and had 5 left at the end. How many did I sell?*

	Making 10	Use this strategy to subtract a single digit number from a 2-digit number. Pupils identify how many need to be taken away to make ten first. Then they take away the rest to reach the answer.  14 – 5 =9		15 – 7= How many do we subtract to reach the next 10? How many do we have left to subtract?
Subtraction (EYFS, Year 1 & 2)	Finding the difference	Explore the meaning of 'difference', use the inverse relationship with addition by counting back and counting up. Compare objects and amount using practical resources. 	Count on using a number line to find the difference. 	Hannah has 12 sweets and her sister has 5. How many more does Hannah have than her sister?
	Partitioning to subtract without re-grouping.	The emphasis for this strategy in KS1 is to develop a deep understanding of place value. When not regrouping, partitioning should be developed as a mental strategy.  Use base 10 to show how to partition. 54 – 21=	Children draw representation of base 10 and cross off.  43—21 = 22 47 – 23= Partition the second number Into tens and ones (move towards efficient jumps). 	There are 35 children in the class and 12 are boys. How many are girls? 35-12=

	Objective/Strategy	Concrete	Pictorial	Abstract
Subtraction Year 3	Can subtract numbers mentally including: *a 3-digit number and ones, a 3-digit number and tens, a 3-digit number and hundreds*	Use of base 10 and place value counters to develop understanding of subtraction. Using 100 squares to support initial subtractions.	Use drawings to support subtraction 	Complete subtractions mentally. Eg: 349 – 3 349 – 30 349 - 300

	Subtract up to three-digit numbers using columnar methods	Using base 10 to show exchange 	Column subtraction with no exchange:  Column subtraction with exchange.  	Complete column subtraction of 3 digit numbers. Exchange in column subtraction 
	Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the		To draw models to represent the relationship between: 25 12 37 	Using addition to check subtraction:  Missing number calculations. If you know: 25 + 12 = 37

	commutative property of addition, and understand the related property for subtraction.		Using bar models to create calculations:  ___ + ___ = 600 600 = ___ − ___ ___ + ___ = 600 600 = ___ − ___ ___ − ___ = 400 400 = ___ − ___ ___ − ___ = 200 200 = ___ − ___	How can this help to calculate 37 – 12? What other calculations could you write?

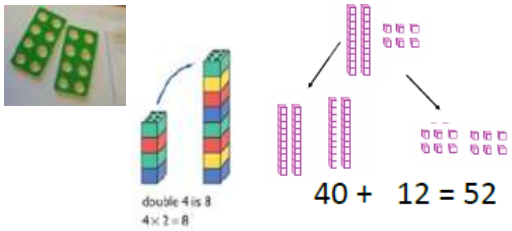
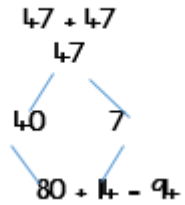
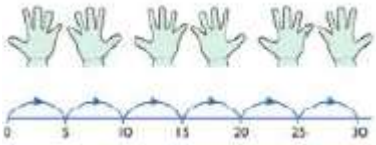
Subtraction Year 4–6	Objective/Strategy	Concrete	Pictorial	Abstract
	Subtracting tens and ones Year 4 subtract with up to 4 digits. *Introduce decimal subtraction through context of money*	Model process of exchange using Numicon, base ten and then move to pv counters. 234 - 179 	Children to draw pv counters and show their exchange—see Y3.	Use the phrase 'take and make' for exchange. 
	Year 5- Subtract with at least 4 digits, including money and measures. *Subtract with decimal values, including mixtures of integers and decimals and aligning the decimal*	As Year 4	Children to draw pv counters and show their exchange—see Y3	Use zeros for place-holders. 
	Year 6—Subtract with increasingly large and more complex numbers and decimal values.			

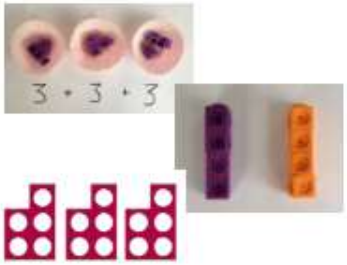
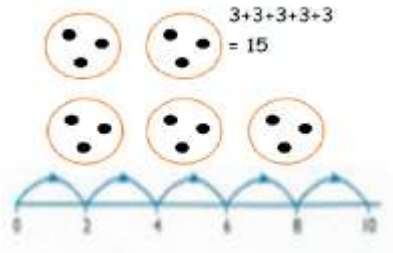
Progression in Calculations

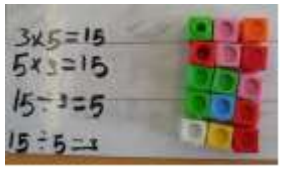
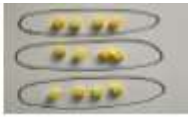
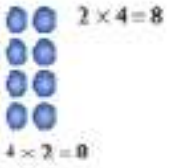
Multiplication

Nursery and Reception

In Reception, children begin to understand the concept of doubling and to be able to double a number up to 10. Before doubling can be introduced, children need to have a secure knowledge of counting, number facts and addition in order to double. Children are then introduced to the concept of doubling through practical games and activities, including the use of the outdoor areas. Children act out 'doubling' by physically adding two equal groups together to find out the 'doubles' answer.

Multiplication (EYFS, Year 1 & 2)	Objective/Strategy	Concrete	Pictorial	Abstract
	Doubling *Children should be encouraged to develop fluent mental recall of doubles and relate to the 2 x table.*	Use practical activities to demonstrate doubling. Manipulatives such as cubes, base 10 and Numicon can show this. 	Draw pictures to show how to double numbers.	Partition a number and then double each part before recombining it back together. Use the 'diamond method' to double 47 + 47 
	Counting in multiples	Count the groups as children are skip counting, children may use their fingers as they are skip counting. 	Use a number line or pictures to continue support in counting in multiples. 	Count in multiples of a number aloud. Write sequences with multiples of numbers and work out missing numbers in sequences both forwards and backwards. If I count in 2's will I get to the number 58?

	Repeated addition *Pupils should apply skip counting to help find the totals of repeated additions.*	Use different objects to add equal groups. 	Children begin to recognise the relationship between repeated addition and multiplication. 	Write addition sentences to describe objects and pictures.  2+2+2+2+2=10 2x5=10
	Arrays	Use objects laid out in arrays to find the answers to 2 lots of 5, 3 lots of 2 etc. 	Draw representations of arrays to show understanding. 	3 x 2 = 6 2 x 5 = 10 3 x 6 = 18 

	Multiplication is commutative	Create arrays using counters, cubes and Numicon.  Pupils should understand that an array can represent different equations and that, as multiplication is commutative, the order of the multiplication does not affect the answer.  	Draw arrays in different rotations to find **commutative** multiplication sentences.   	3 children go to the park to hunt for pine cones. They find 5 each, how many do they find altogether?  5+5+5=15 3x5=15 3+3+3+3+3=15 5x3=15

Nurture
InsPire
ResPect
Succeed

Newfield Park Primary School

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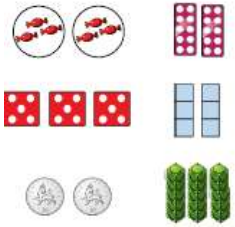
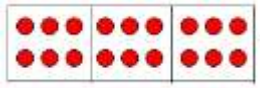
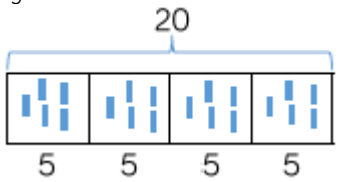
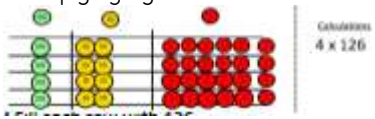
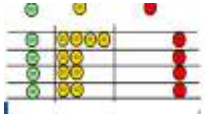
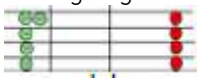
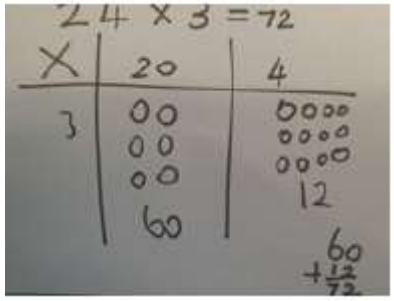
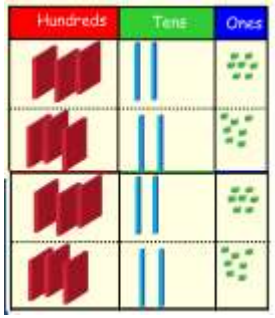
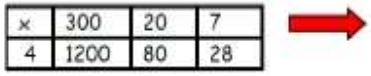
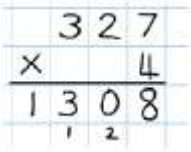
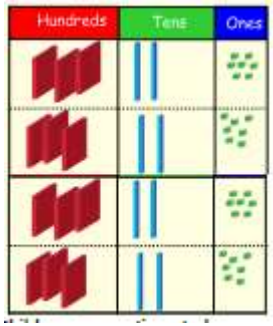
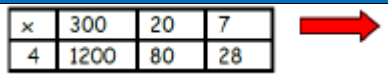
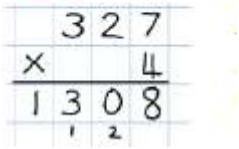
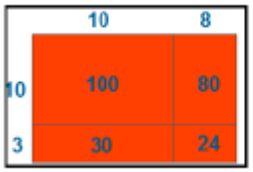
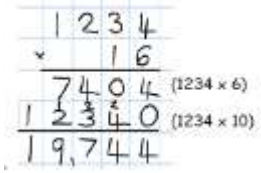
	Objective/Strategy	Concrete	Pictorial	Abstract
Multiplication Year 3	To learn facts for the 3, 4 and 8 times table	Using equipment to represent multiplication and division number facts: 	To generate number sentences from pictures:  ___+___+___=18 ___x___=18 What number sentences are represented by the picture:  To use picture (arrays or bar models) to calculate unknown values Eg: 20 ÷ 4 = 	To be able to recall multiplication and division facts from the 3, 4 and 8 times tables. Eg: 1 x 3 = ___ 2 x ___ = 6 ___ = 3 x 3 9 x 3 = ___ ___ x 3 = 30 8 x ___ = 24 6 x 3 = ___ 21 = ___ x 3

	Objective/Strategy	Concrete	Pictorial	Abstract
Multiplication Year 4	Grid method recap from year 3 for 2 digits x 1 digit Move to multiplying 3 digit numbers by 1 digit. (year 4 expectation)	Use place value counters to show how we are finding groups of a number. We are multiplying by 4 so we need 4 rows.  Fill each row with 126.  Add up each column, starting with the ones making any exchanges needed 	Children can represent their work with place value counters in a way that they understand. They can draw the counters using colours to show different amounts or just use the circles in the different columns to show their thinking as shown below. 	Start with multiplying by one digit numbers and showing the clear addition alongside the grid.  210 + 35 = 245

	Column multiplication	Children can continue to be supported by place value counters at the stage of multiplication. This initially done where there is no regrouping. 321 x 2 = 642  It is important at this stage that they always multiply the ones first. The corresponding long multiplication is modelled alongside	 The grid method may be used to show how this relates to a formal written method.  Bar modelling and number lines can support learners when solving problems with multiplication alongside the formal written methods.	327 x 4 28 80 1200 1308 This may lead to a compact method. 

Multiplication Years 5-6

Objective/Strategy	Concrete	Pictorial	Abstract
Column Multiplication for 3 and 4 digits x 1 digit.	It is important at this stage that they always multiply the ones first. Children can continue to be supported by place value counters at the stage of multiplication. This initially done where there is no regrouping. 321 x 2 = 642 		327 x 4 28 80 1200 1308  This will lead to a compact method
Column multiplication	Manipulatives may still be used with the corresponding long multiplication modelled alongside.	 Continue to use bar modelling to support problem solving	 18 x 3 on the first row (8 x 3 =24, carrying the 2 for 20, then 1 x 3)

				18 x 10 on the 2nd row. Show multiplying by 10 by putting zero in units first 

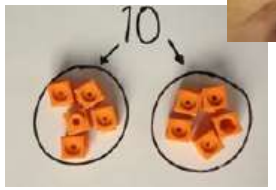
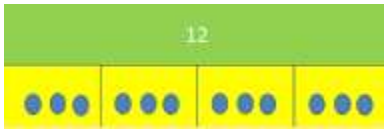
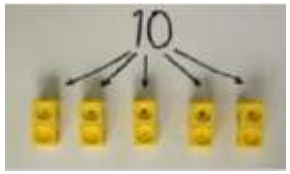
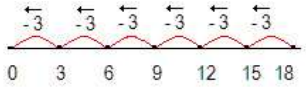
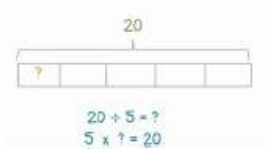
Progression in Calculations

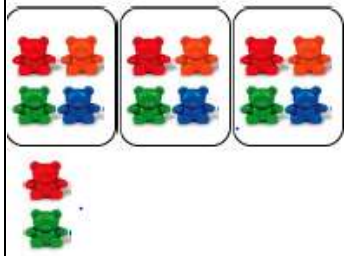
Division

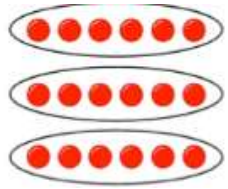
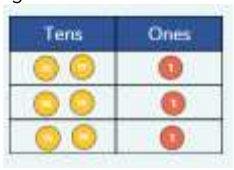
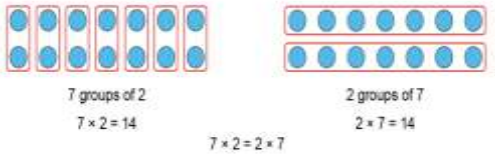
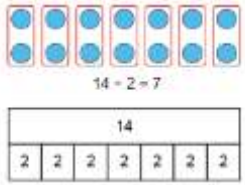
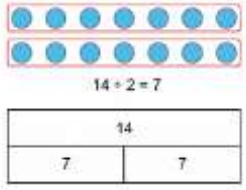
Nursery and Reception

By the end of Reception, children are expected to understand the concept of halving and sharing. Before this can be introduced, children need to have a secure knowledge of counting backwards, number facts and subtraction in order to halve and share. Children are then introduced to the concept of halving and sharing through practical games and activities. They act out 'halving and sharing' through activities such as sharing food for their Teddy Bear's Picnic, sharing resources equally to play a game. This is reinforced by opportunities provided in the outdoor area for the children to halve and share out objects such as building blocks, twigs etc.

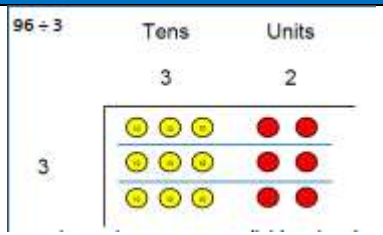
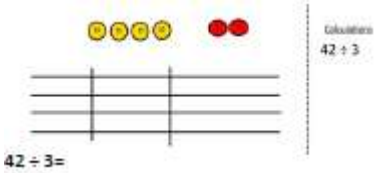
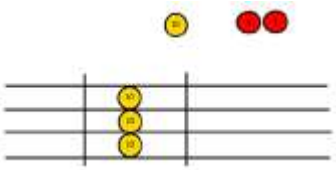
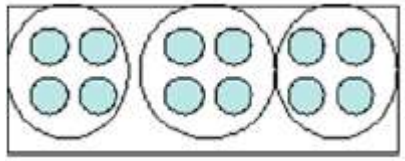
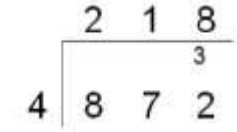
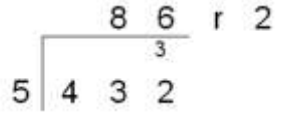
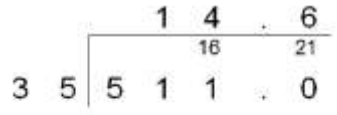
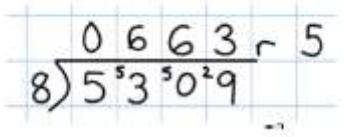
Division (EYFS, Year 1 & 2)

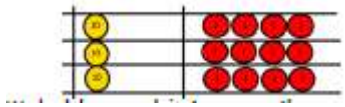
Objective/Strategy	Concrete	Pictorial	Abstract
Sharing	Division is shown as sharing. E.g. If we have 24 squares of chocolate and we share them between 3 people. Each of them will get 8 squares.   	Children use pictures to show division using sharing plates. Children use bar modelling to show and support understanding. 	Share 9 buns between three people. 9 ÷ 3 = 3 Can you make up your own 'sharing' story and record a matching equation?
Division as grouping *This is a good opportunity to demonstrate and reinforce the inverse relationship with multiplication.*	 Divide quantities into equal groups. Use cubes, counters, objects or place value counters to aid understanding.	 Show division as repeated subtraction. Show jumps in groups. The number of jumps equals the number of groups. 	30 ÷ 10 = 3 Divide 30 into 10 groups. How many are in each group? Max is filling party bags with sweets. He has 20 sweets altogether and decides to put 5 in every bag. How many bags can he fill?

			Think of the bar as a whole. Split it into the number of groups you are dividing by and work out how many would be within each group.	
	Division with a remainder This strategy provides an opportunity to reinforce prior learning of odd and even and 'multiples' when exploring how numbers can and cannot be divided into different whole numbers.	14 ÷ 3 = Divide objects between groups and see how many are left over. 	14 ÷ 4=  Use sharing plates to show division and the remainders outside the hoops.	Complete written divisions and show the remainder using r. 7 ÷ 2- 3 rl

Multiplication and division Y3	Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	Divide numbers using place value counters. 18 ÷ 3 = 6  Eg: 63 ÷ 3  	 Use diagrams to represent quotitive division (grouping) 14 divided into groups of 2 is 7  Use diagrams to represent partitive division (sharing) 14 shared into 2 equals 7  	Word or contextual problems that require division to find a solution.

Division Years 4–6

Objective/Strategy	Concrete	Pictorial	Abstract
Divide at least 3 digit numbers by 1 digit. Short Division	 Use place value counters to divide using the bus stop method alongside  Start with the biggest place value, we are sharing 40 into three groups. We can put 1 ten in each group and we have 1 ten left over.  We exchange this ten for ten ones and then share the ones equally among the groups	Students can continue to use drawn diagrams with dots or circles to help them divide numbers into equal groups  Encourage them to move towards counting in multiples to divide more efficiently.	Begin with divisions that divide equally with no remainder.  Move onto divisions with a remainder.  Finally move into decimal places to divide the total accurately  

		 We look how much in 1 group so the answer is 14.		

Division Year 6

Long Division
Step 1—a remainder in the ones

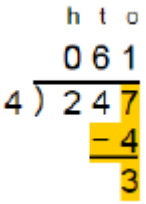
```
    h t o
    0 4 1 R1
  ---------
4 ) 1 6 5
```

4 does not go into 1 (hundred) so combine the 1 hundred with the 6 tens (160)
4 goes into 16 four times
4 goes into 5 once, leaving a remainder of 1

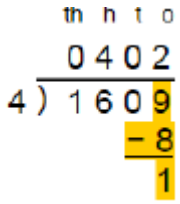
```
    th h t o
    0 4 0 0 R7
  -----------
8 ) 3 2 0 7
```

8 does not go into 3 of the thousands so combine the 3 thousands with the 3 hundreds (3,200)
8 goes into 32 four times (3,200 ÷ 8=400)
8 goes into 0 zero times (tens)

8 goes into 7 zero times and leaves a remainder of 7

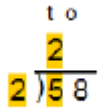
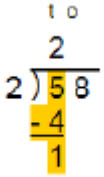
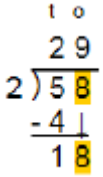


When dividing the ones, 4 goes into 7 one time. Multiply 1 x 4=4, write that 4 under the 7, and subtract. This finds us the remainder of 3.
Check: 4x61=3=247



When dividing the ones, 4 goes into 9 two times. Multiply 2x4=8, write that eight under the 9, and subtract. This finds us a remainder of 1.
Check: 4x402+1=1,609

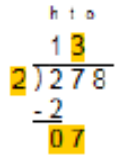
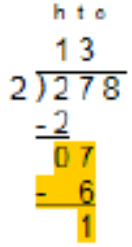
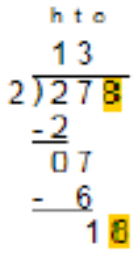
Long division- Step 2 a remainder in the tens		
1. Divide	2. Multiply and subtract	3. Drop down the next digit

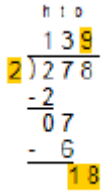
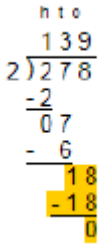
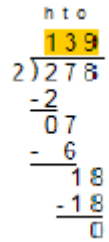
 Two goes into 5 two times, or 5 tens ÷2=2whole tens—but there is a remainder!	 To find it, multiply 2x2=4, write that 4 under the five and subtract to find the remainder of 1 ten.	 Next, drop down the 8 of the ones next to the leftover 1 ten. You combine the remainder ten with the 8 ones and get 18
4. Divide	5. Multiply and subtract	6. Drop down the next digit

t o 2 9 2) 5 8 - 4 1 8 Divide 2 into 18. Place 9 into the quotient.	t o 2 9 2) 5 8 - 4 1 8 - 1 8 0 Multiply 9x2=18, write that 18 under the 18 and subtract	t o 2 9 2) 5 8 - 4 1 8 - 1 8 0 The division is over since there are no more digits in the dividend. The quotient is 29.

Long division Step 2—a remainder in any of the place values

1. Divide	2. Multiply and subtract	3. Drop down the next digit
h t o 1 2) 2 7 8 Two goes into 2 one time, or 2 hundreds÷2=1 hundred	h t o 1 2) 2 7 8 - 2 0 Multiply 1x2=2, write that 2 under the two and subtract to find the remainder of zero	h t o 1 8 2) 2 7 8 - 2 ↓ 0 7 Next, drop down the 7 of the tens next to the zero.

4. Divide	5. Multiply and subtract	6. Drop down the next digit
 Divide 2 into 7. Place 3 into the quotient.	 Multiply 3x3=6, write that 6 under the 7 and subtract to find the remainder of 1 ten.	 Next, drop down the 8 of the ones next to the 1 left over ten
7. Divide	8. Multiply and subtract	9. Drop down the next digit

 Divide 2 into 18. Place 9 into the quotient.	 Multiply 9x2=18, write that 18 under the 18 and subtract to find the remainder of zero.	 There are no more digits to drop down. The quotient is 139.

Completed by: Janelle Parchment
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To be reviewed: September 2021