



St Michael's C E Primary

Curriculum Policy:

Mathematics

(Including calculation)

"We are the seeds. Our school is the good ground which provides everyone with all they need to grow and achieve." *(Our children)*

St Michael's is a Church of England Primary School built on distinctive Christian Values at the very heart of its community.

We will provide:

- a welcoming, inclusive school with strong relationships across our community, that celebrates diversity;
- excellent teaching with a nurturing approach, guiding first steps to next steps;
- an inspirational and challenging curriculum which ignites curiosity, encourages resilience and grows confidence so children become lifelong learners;
- a happy, safe and stimulating environment in which children can achieve their full potential;

So that our children will flourish in all they do and become good citizens

"And some seed fell on good ground. This seed grew and made 100 times more grain." *(Luke 8:8)*

Respect, Persevere, Achieve

MATHS

To be read alongside school's Curriculum Aims, Teaching and Learning Policy and Assessment and Feedback Policy

Rationale

At St Michael's Primary School we envisage a culture of high achievement in Maths. There is belief by all that high attainment is possible and every child should aim to maximise their learning in order to overcome any potential barriers.

Big Ideas in Maths

The aim of MATHEMATICS as set out in the National Curriculum is to ensure that all pupils are secure in the following:

- **FLUENCY** - become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- **REASONING** - reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- **PROBLEM SOLVING** - can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

The aim of the St Michael's Primary School is to ensure:

- Development of a thorough knowledge and understanding of numbers and the number system in line with National Curriculum recommendations.
- Clear progression and continuity appropriate to individual needs.
- Promotion of fluency, confidence and competence in all forms of calculation.
- Development of logical thinking and reasoning skills through questioning and an investigative approach.
- Development of the ability to solve problems through decision making and application of problem solving strategies in a range of contexts.
- Understanding the importance of mathematical skills in everyday life.
- Promotion of enjoyment and enthusiasm for learning through practical activities, exploration and discussion.
- Encouragement of pupils to take responsibility for their own learning.

Our aims are met by providing pupils with a wide range of rich learning opportunities which include incorporating concrete apparatus where appropriate. Lessons are well structured and appropriately differentiated to meet the needs of all individual pupils.

Implementation of the Policy

At St Michael's Primary School the National Curriculum is fully implemented across school with each child receiving a daily mathematics lesson. Although the structure of the lessons may be rearranged, they are planned to include opportunities for children to become fluent in the fundamentals of mathematics through varied and frequent practice, the reinforcement of key skills and times table recall. Lessons reflect the opportunity for each child to be challenged. All lessons begin with an arithmetic starter and these are focussed to cover a range or specific objectives depending on the needs of the children.

Objectives

Key Stage 1- Years 1 and 2

The programmes of study for mathematics are set out year-by-year for Key Stage 1 and 2, in accordance with the National Curriculum and form the basis of the medium term planning in school. As outlined in the National Curriculum, the principal focus in Key Stage 1 is to ensure that children develop confidence and mental fluency with whole numbers, counting and place value. This involves working with numerals, words and the four operations and includes practical resources. Children develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching also involves using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. In Year 2 teaching ensures that the content provided at the end of Key Phase exemplification materials is also covered.

Lower Key Stage 2- Years 3 and 4

In Lower Key Stage 2 it is expected that children become increasingly fluent with whole numbers and the four operations including number facts and the concept of place value. This ensures that children develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. At this stage children develop their ability to solve a range of problems that include simple fractions and decimal place value. Teaching also ensures that children draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties and confidently describe the relationships between them. This ensures that they can use measuring instruments with accuracy and make connections between measure and number. By the end of year 4 pupils have memorised their multiplication tables up to and including the 12 times table and are able to demonstrate precision and fluency in their work. Pupils read and spell mathematical vocabulary correctly and confidently using their ever expanding ability in both.

Upper key stage 2 – Years 5 and 6

The principal focus at this stage is to ensure that children have the opportunity to extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio. At this stage children develop their ability to solve a wider range of problems, including increasingly complex numbers with questions that demand efficient written and mental methods of calculation. With this foundation in arithmetic children are introduced to the language of algebra as a means of solving a variety of problems. Teaching in geometry and measures consolidate and extend knowledge developed in number. Teaching also ensures that pupils classify shapes with appropriate vocabulary and increasingly complex geometric properties. By the end of Year 6, children are fluent in written methods for all four operations including long multiplication and division and are confident when working with fractions, decimals and percentages.

Organisation and planning

At St Michael's Primary School we use the long term plan taken from the National Curriculum. Each class teacher uses the White Rose Maths documents for their particular year groups which have a set of bullet points for each element of the maths curriculum. From years 1 to 5 these elements are place value, addition and subtraction, multiplication and division, fractions, measures, geometry and statistics. In Year 6, these units are place value, number and calculation, measures, geometry, statistics, fractions, ratio and proportion and algebra.

Recording of work

Maths lessons usually involve calculations and work being recorded in a child's book. There will be some more practical lessons or lessons involving maths investigations that may be recorded using photo evidence.

Assessment and Marking

At St Michael's Primary School ongoing assessment is a crucial part of effective teaching. We are continually assessing our pupils and recording their progress. We strive to make assessment purposeful and robust, allowing us to match the correct level of work to the needs of the children, thus benefiting the pupils and ensuring progress. Daily assessment takes place through marking. This allows children to receive feedback if there is misconception, to consolidate their understanding of a concept or, in cases where they are proficient with a concept, provide further challenge.

For formative assessment teachers assess children's work against a set of Math's End of Year Expectations. These help to inform teacher judgments.

In St Michael's Primary School during 'assessment week' all children are assessed on their progress. From Year 1 up to Year 6 children complete a year group specific formal standardised assessment of their mental arithmetic and reasoning once a year. This assessment helps to provide further evidence towards identifying those children who are working below, at or above the expected level across year groups. In addition, children on the SEND register are also assessed in relation to their individual targets recorded on their Provision Map.

All assessment data is recorded and this information is analysed by the class teacher to inform future planning. Children not making expected progress are identified and intervention strategies planned to support.

Early Years Curriculum

At St Michael's Primary School children follow the Early Years Foundation Stage Curriculum. We give all children the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and numeracy skills. They have the opportunity to explore, enjoy, learn about, and use mathematics in a range of situations. Mathematics is planned on a half-termly basis and assessed using the criteria from the Early Learning Goals. Mathematics is taught both as a discrete subject and within the whole Early Years Curriculum to give children opportunities to use their numeracy skills in real life situations.

Governors

The Maths policy is reviewed annually by the governing body, a member of whom represents Maths Learning in school. Members of the school's governing body are invited to take part in learning walks

or 'Deep Dives' with the Subject Lead and members of the Senior Leadership Team to help outline the schools approach to the delivery of the maths curriculum.

Subject Leader

At St Michael's Primary School, the maths subject lead monitors planning, teaching and assessments. They ensure that the curriculum has been covered and that there are no gaps. The coordinator takes responsibility for addressing any needs or concerns that arise as a result of this monitoring.

To monitor and evaluate maths the maths subject lead does the following:

- Purchases and organises the appropriate resources.
- Supports colleagues in the planning and teaching of maths.
- Keeps up-to-date on the use of maths in the curriculum and regularly attends training for subject leaders held by the LA and feedback new information and ideas to staff.
- Conducts maths scrutiny to assess the standards of Teaching and Learning through the children's work.
- Regularly reviews and updates the maths Policy and contributes to the school's self-evaluation programme.

Equal Opportunities

We believe that all those who work in or attend St Michael's Primary School have the right to be treated fairly and with respect by everyone connected with the school. We aim for St Michael's Primary School to be a safe, supportive place where all children and adults feel valued as individuals. In every lesson the individual needs of a child must be considered. Maths is about personal development and any lesson plan should be flexible enough to accommodate individuality of expression.

Children with additional needs

At St Michael's Primary School we aim to encourage all children to reach their full potential through the provision of varied opportunities. We recognise that our curriculum planning must allow children to gain a progressively deeper understanding and competency as they move through our school.

More Able Learners

More able learners will be identified as part of our formative and summative assessment procedures. We will provide for their needs through a framework of high quality first teaching which focuses on ensuring the children are challenged appropriately. In addition, we will focus on developing their learning behaviours, including, greater reflection, problem solving and enquiry, making connections, higher order thinking skills and independent learning. The progress of more able learners will be rigorously tracked to ensure more able children reach their full potential. Teachers have support materials to help provide these children with activities that encourage a greater depth of understanding. These include the White Rose Math's Hub scheme along with the NCETM Mastery documentation and Third Space Learning Maths Hub resources.

SEND/Inclusion

Children who are identified as being on the SEND register will be given support as identified on their Individual Provision Map. A variety of support materials are available from the SENDCo. Children are supported in the first instance through quality first teaching. Lessons will be differentiated in line with the individual needs of the children. All provision for pupils with SEND is in line with the school's SEND policy.

Intervention

Pre and post intervention takes place out of the classroom and is used to target children that require further support in their maths work. All pupils will have equal rights and access to high quality mathematics teaching. Interventions are evaluated half termly to ensure impact and effectiveness.

Homework

Children from Year 2 to Year 6 have a Times Table Rockstar account which is tailored to the individual needs of the child. If a child is able to learn their times table and answer a number of questions in a mixed up order they are rewarded with house points. Children lower down the school complete Numbot tasks to help increase their fluency in number.

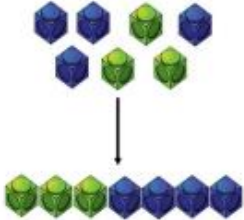
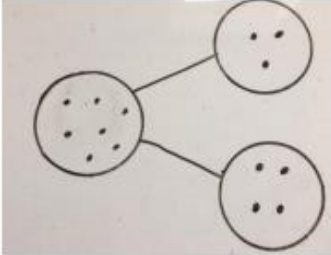
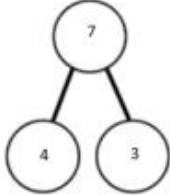

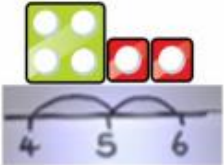
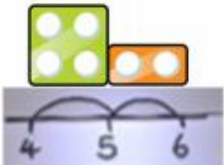
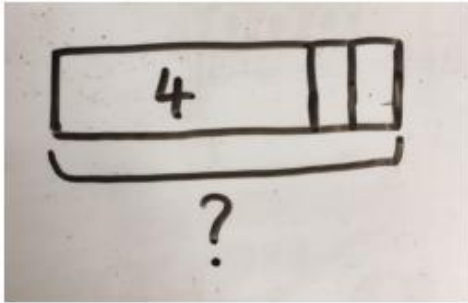

Mathematics at St Michael's CE Primary School

	Aut 1		Aut 2		Spr 1			Spr 2			Sum 1		Sum 2	
EYFS	Getting to know you	Just like me!	It's me 1, 2, 3!	Light and Dark	Alive in 5!		Growing 6, 7, 8		Building 9 and 10		To 20 and Beyond	First, then, now	Find my Pattern	On the Move
KS1	Number: place Value Y1 – to 20 Y2 – to 100	Number: addition and Subtraction Y1 – within 20 Y2 – within 100 (both including money)	Number: Y1 – Place value to 50 Y2 - Multiplication	Number: Y1 – division Y2 - Division	Y1 – Place value to 100		Geometry Y1 – Shape Y2 – Properties of shape	Number Y1 – Fractions Y2 - Fractions	Geometry Position and Direction	Measure Time	Y1 – Place value Y2 – Problem solving	Measure Y1 – Weight and volume	Y1 – Four operations	
					Y2 - Statistics							Y2 – Mass, capacity and temperature	Y2 – Consolidation and investigations	
LKS2	Number: Place value	Number: Addition and subtraction	Number: Multiplication and Division	Number: Multiplication and Division	Measure: Length, perimeter and Area		Number: Fractions	Y3 – Measures: Mass and Capacity Y4: Number Decimals		Number: Decimals (including money)	Measure: Time	Statistics	Geometry: Properties of Shape including Y4 – Position and Direction	
UKS2	Number: Place Value	Number: Four Operations	Number: Fractions	Y5 – Fractions Y6 - Ratio	Decimals and Percentages	Y5 – Decimals Y6 - Algebra	Measure – converting units	Measure: perimeter, area and volume	Statistics	Geometry: Properties of Shape		Geometry: Position and Direction		

<https://whiterosemaths.com/>

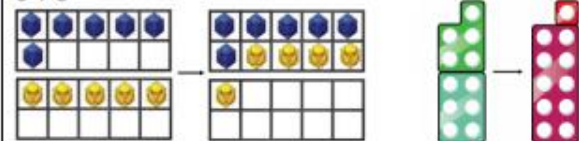
Calculation policy: Addition

Key language: sum, total, parts and wholes, plus, add, altogether, more, 'is equal to' 'is the same as'.

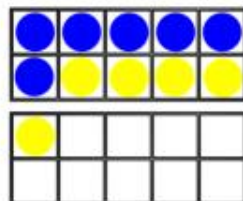
Concrete	Pictorial	Abstract
<p>Combining two parts to make a whole (use other resources too e.g. eggs, shells, teddy bears, cars).</p> 	<p>Children to represent the cubes using dots or crosses. They could put each part on a part whole model too.</p> 	<p>$4 + 3 = 7$ Four is a part, 3 is a part and the whole is seven.</p> 
<p>Counting on using number lines using cubes or Numicon.</p>   	<p>A bar model which encourages the children to count on, rather than count all.</p> 	<p>The abstract number line: What is 2 more than 4? What is the sum of 2 and 4? What is the total of 4 and 2? $4 + 2$</p> 

Regrouping to make 10; using ten frames and counters/cubes or using Numicon.

$$6 + 5$$



Children to draw the ten frame and counters/cubes.



Children to develop an understanding of equality e.g.

$$6 + \square = 11$$

$$6 + 5 = 5 + \square$$

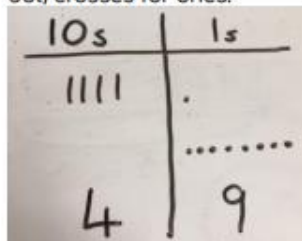
$$6 + 5 = \square + 4$$

TO + O using base 10. Continue to develop understanding of partitioning and place value.

$$41 + 8$$



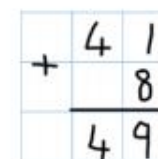
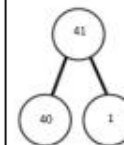
Children to represent the base 10 e.g. lines for tens and dot/crosses for ones.



$$41 + 8$$

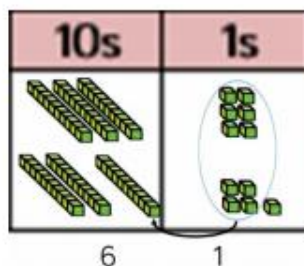
$$1 + 8 = 9$$

$$40 + 9 = 49$$

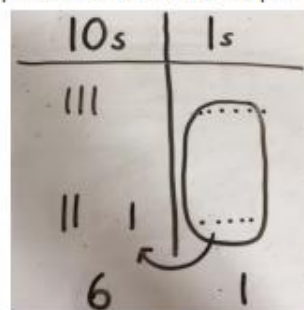


TO + TO using base 10. Continue to develop understanding of partitioning and place value.

$$36 + 25$$



Children to represent the base 10 in a place value chart.



Looking for ways to make 10.

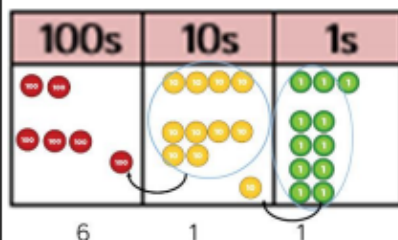
$$36 + 25 =$$

$30 + 20 = 50$
 $5 + 5 = 10$
 $50 + 10 + 1 = 61$

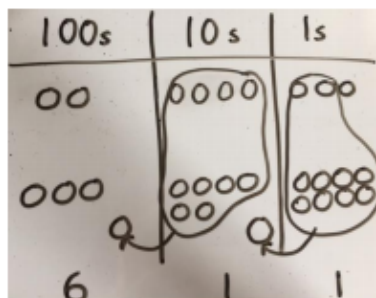
Formal method:

$$\begin{array}{r} 36 \\ +25 \\ \hline 61 \\ 1 \end{array}$$

Use of place value counters to add HTO + TO, HTO + HTO etc. When there are 10 ones in the 1s column- we exchange for 1 ten, when there are 10 tens in the 10s column- we exchange for 1 hundred.

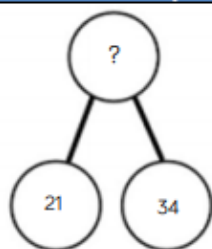


Children to represent the counters in a place value chart, circling when they make an exchange.



$$\begin{array}{r} 243 \\ +368 \\ \hline 611 \\ 1 \quad 1 \end{array}$$

Conceptual variation; different ways to ask children to solve $21 + 34$



?	
21	34

Word problems:

In year 3, there are 21 children and in year 4, there are 34 children. How many children in total?

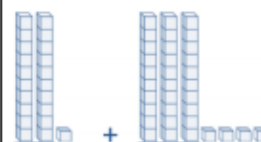
$21 + 34 = 55$. Prove it

$$\begin{array}{r} 21 \\ +34 \\ \hline \end{array}$$

$21 + 34 =$

$$\boxed{} = 21 + 34$$

Calculate the sum of twenty-one and thirty-four.

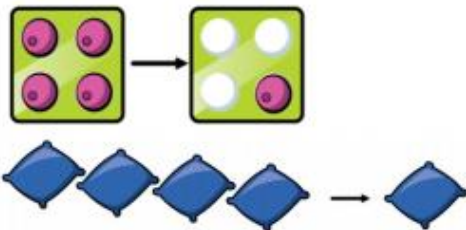
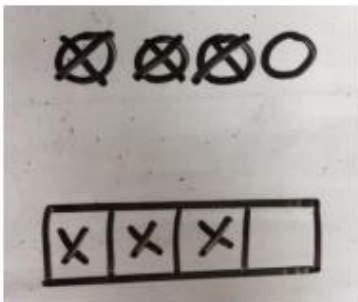
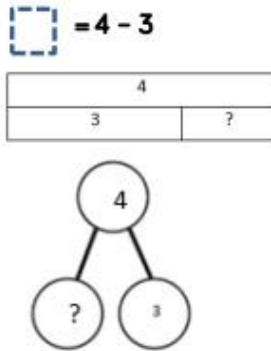

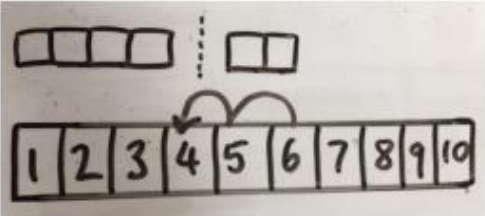
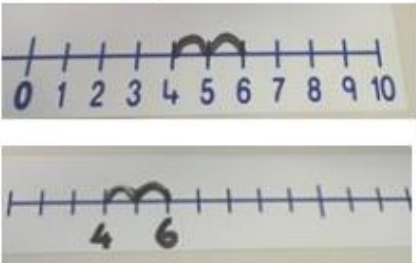


Missing digit problems:

10s	1s
20, 10	1
30, 10, 10	?
?	5

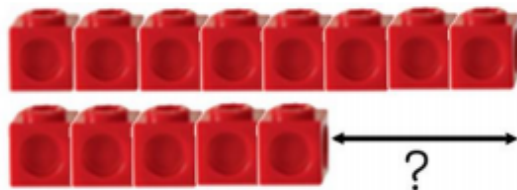
Calculation policy: Subtraction

Key language: take away, less than, the difference, subtract, minus, fewer, decrease.

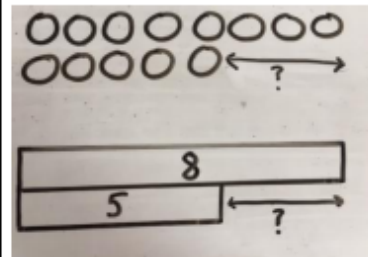
Concrete	Pictorial	Abstract
<p>Physically taking away and removing objects from a whole (ten frames, Numicon, cubes and other items such as beanbags could be used).</p> <p>$4 - 3 = 1$</p> 	<p>Children to draw the concrete resources they are using and cross out the correct amount. The bar model can also be used.</p> 	<p>$4 - 3 =$</p> <p></p>
<p>Counting back (using number lines or number tracks) children start with 6 and count back 2.</p> <p>$6 - 2 = 4$</p> 	<p>Children to represent what they see pictorially e.g.</p> 	<p>Children to represent the calculation on a number line or number track and show their jumps. Encourage children to use an empty number line</p> 

Finding the difference (using cubes, Numicon or Cuisenaire rods, other objects can also be used).

Calculate the difference between 8 and 5.



Children to draw the cubes/other concrete objects which they have used or use the bar model to illustrate what they need to calculate.



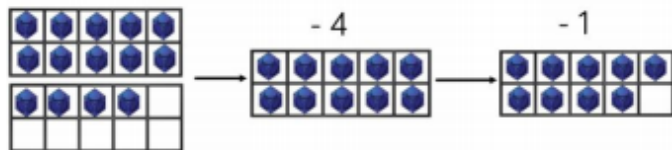
Find the difference between 8 and 5.

8 - 5, the difference is

Children to explore why
 $9 - 6 = 8 - 5 = 7 - 4$ have the same difference.

Making 10 using ten frames.

14 - 5



Children to present the ten frame pictorially and discuss what they did to make 10.



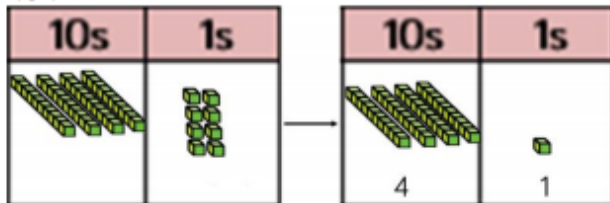
Children to show how they can make 10 by partitioning the subtrahend.

$$\begin{array}{r} 14 - 5 = 9 \\ \quad \swarrow \quad \searrow \\ 4 \quad \quad 1 \end{array}$$

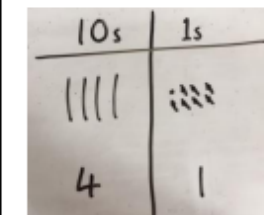
$$\begin{array}{l} 14 - 4 = 10 \\ 10 - 1 = 9 \end{array}$$

Column method using base 10.

48 - 7



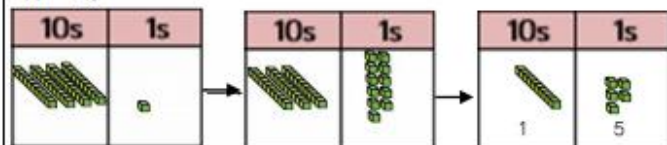
Children to represent the base 10 pictorially.



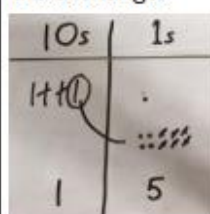
Column method or children could count back 7.

	4	8
-		7
	4	1

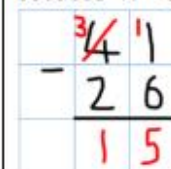
Column method using base 10 and having to exchange.
41 - 26



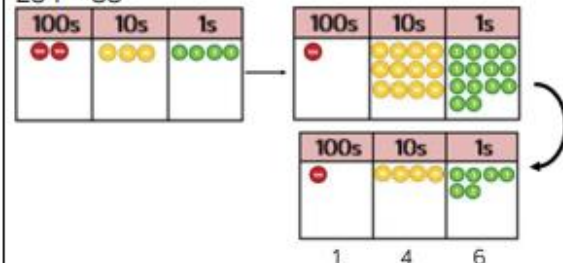
Represent the base 10 pictorially, remembering to show the exchange.



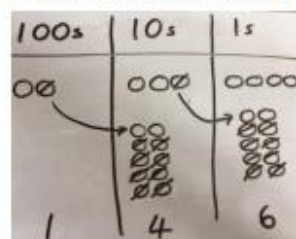
Formal column method. Children must understand that when they have exchanged the 10 they still have 41 because $41 = 30 + 11$.



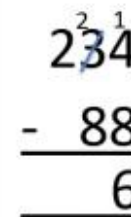
Column method using place value counters.
234 - 88



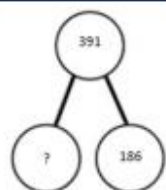
Represent the place value counters pictorially; remembering to show what has been exchanged.



Formal column method. Children must understand what has happened when they have crossed out digits.



Conceptual variation; different ways to ask children to solve $391 - 186$



391	
186	?

Raj spent £391, Timmy spent £186.
How much more did Raj spend?

Calculate the difference between 391 and 186.

$$\square = 391 - 186$$

$$\begin{array}{r} 391 \\ -186 \\ \hline \end{array}$$

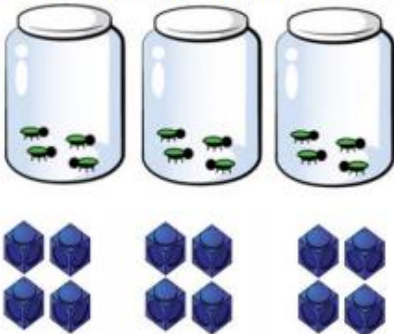
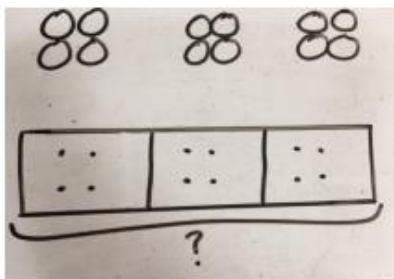
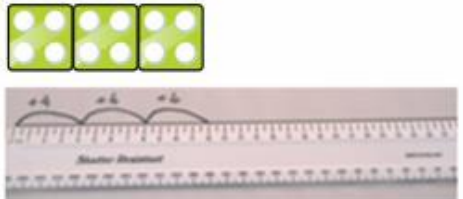
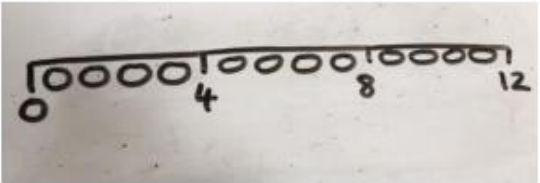
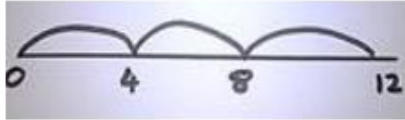
What is 186 less than 391?

Missing digit calculations

$$\begin{array}{r} 39\square \\ -\square\square6 \\ \hline \square05 \end{array}$$

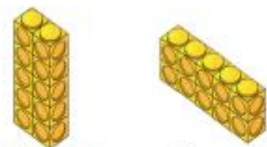
Calculation policy: Multiplication

Key language: double, times, multiplied by, the product of, groups of, lots of, equal groups.

Concrete	Pictorial	Abstract
<p>Repeated grouping/repeated addition 3×4 $4 + 4 + 4$ There are 3 equal groups, with 4 in each group.</p> 	<p>Children to represent the practical resources in a picture and use a bar model.</p> 	<p>$3 \times 4 = 12$ $4 + 4 + 4 = 12$</p>
<p>Number lines to show repeated groups- 3×4</p>  <p>Cuisenaire rods can be used too.</p>	<p>Represent this pictorially alongside a number line e.g.:</p> 	<p>Abstract number line showing three jumps of four.</p> <p>$3 \times 4 = 12$</p> 

Use arrays to illustrate commutativity counters and other objects can also be used.

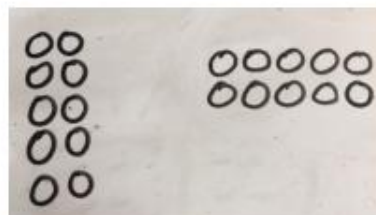
$$2 \times 5 = 5 \times 2$$



2 lots of 5

5 lots of 2

Children to represent the arrays pictorially.



Children to be able to use an array to write a range of calculations e.g.

$$10 = 2 \times 5$$

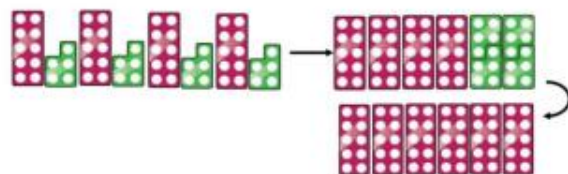
$$5 \times 2 = 10$$

$$2 + 2 + 2 + 2 + 2 = 10$$

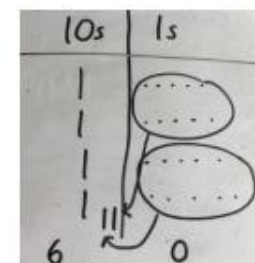
$$10 = 5 + 5$$

Partition to multiply using Numicon, base 10 or Cuisenaire rods.

$$4 \times 15$$



Children to represent the concrete manipulatives pictorially.



Children to be encouraged to show the steps they have taken.

$$4 \times 15$$

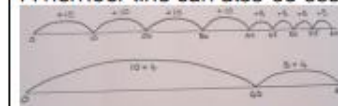
$$10 \quad 5$$

$$10 \times 4 = 40$$

$$5 \times 4 = 20$$

$$40 + 20 = 60$$

A number line can also be used



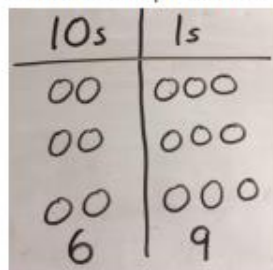
Formal column method with place value counters (base 10 can also be used.) 3×23



6

9

Children to represent the counters pictorially.



Children to record what it is they are doing to show understanding.

$$3 \times 23$$

$$3 \times 20 = 60$$

$$20 \quad 3$$

$$3 \times 3 = 9$$

$$60 + 9 = 69$$




$$23$$

$$\begin{array}{r} \times 3 \\ 23 \\ \hline 69 \end{array}$$

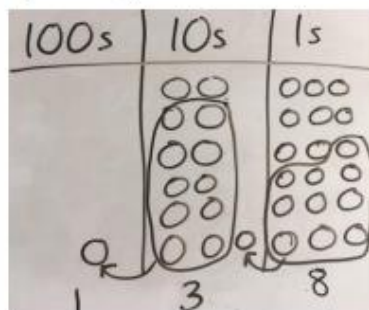
Formal column method with place value counters.

$$6 \times 23$$

100s	10s	1s
		

100s	10s	1s
		

Children to represent the counters/base 10, pictorially e.g. the image below.



Formal written method

$$6 \times 23 =$$

$$\begin{array}{r} 23 \\ \times 6 \\ \hline 138 \\ \hline 11 \end{array}$$

When children start to multiply $3d \times 3d$ and $4d \times 2d$ etc., they should be confident with the abstract:

To get 744 children have solved 6×124 .

To get 2480 they have solved 20×124 .

$$\begin{array}{r} 124 \\ \times 26 \\ \hline 744 \\ 2480 \\ \hline 3224 \end{array}$$

Answer: 3224

Conceptual variation; different ways to ask children to solve 6×23

23	23	23	23	23	23
----	----	----	----	----	----

?

Mai had to swim 23 lengths, 6 times a week.

How many lengths did she swim in one week?

With the counters, prove that $6 \times 23 = 138$

Find the product of 6 and 23

$$6 \times 23 =$$

$$\square = 6 \times 23$$

$$\begin{array}{r} 6 \quad 23 \\ \times 23 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

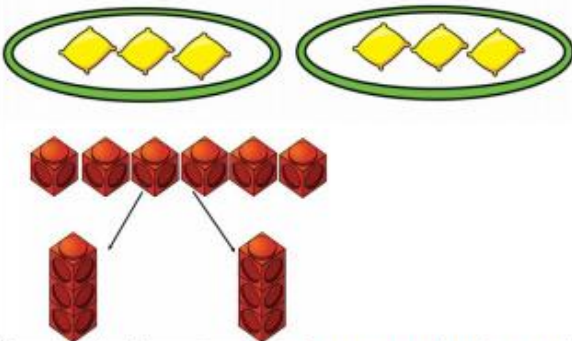
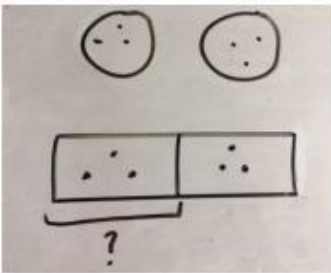
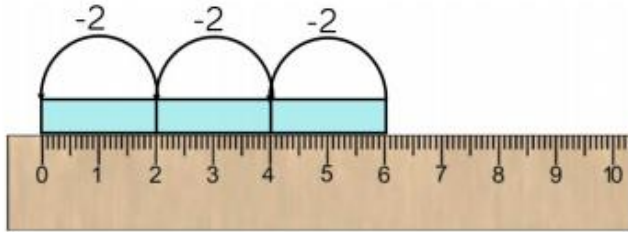
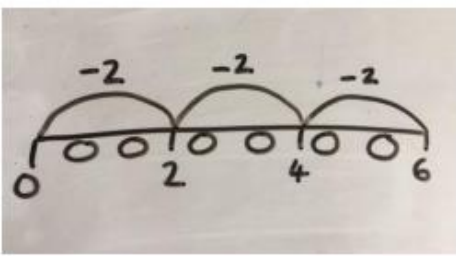
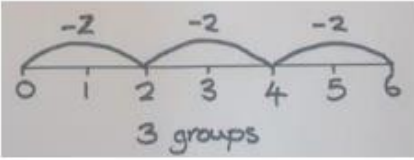
What is the calculation?

What is the product?

100s	10s	1s
		

Calculation policy: Division

Key language: share, group, divide, divided by, half.

Concrete	Pictorial	Abstract		
<p>Sharing using a range of objects. $6 \div 2$</p> 	<p>Represent the sharing pictorially.</p> 	<p>$6 \div 2 = 3$</p> <table border="1" data-bbox="1456 571 1832 628"><tr><td>3</td><td>3</td></tr></table> <p>Children should also be encouraged to use their 2 times tables facts.</p>	3	3
3	3			
<p>Repeated subtraction using Cuisenaire rods above a ruler. $6 \div 2$</p>  <p>3 groups of 2</p>	<p>Children to represent repeated subtraction pictorially.</p> 	<p>Abstract number line to represent the equal groups that have been subtracted.</p>  <p>3 groups</p>		

2d + 1d with remainders using lollipop sticks. Cuisenaire rods, above a ruler can also be used.

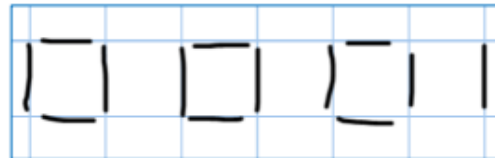
$$13 \div 4$$

Use of lollipop sticks to form wholes- squares are made because we are dividing by 4.



There are 3 whole squares, with 1 left over.

Children to represent the lollipop sticks pictorially.

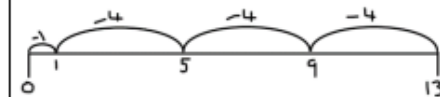


There are 3 whole squares, with 1 left over.

$$13 \div 4 = 3 \text{ remainder } 1$$

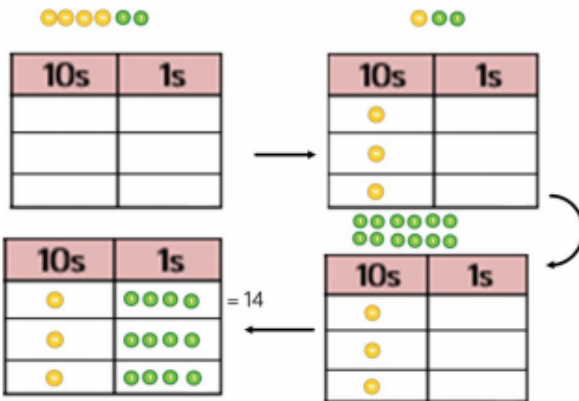
Children should be encouraged to use their times table facts; they could also represent repeated addition on a number line.

'3 groups of 4, with 1 left over'

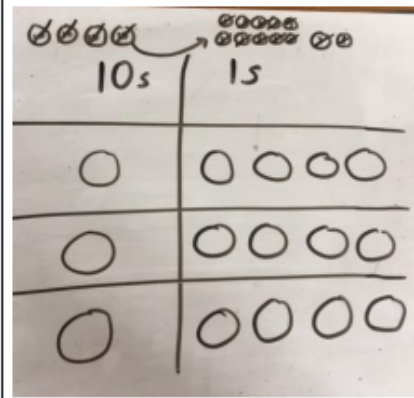


Sharing using place value counters.

$$42 \div 3 = 14$$



Children to represent the place value counters pictorially.



Children to be able to make sense of the place value counters and write calculations to show the process.

$$\begin{aligned} 42 &\div 3 \\ 42 &= 30 + 12 \\ 30 &\div 3 = 10 \\ 12 &\div 3 = 4 \\ 10 &+ 4 = 14 \end{aligned}$$

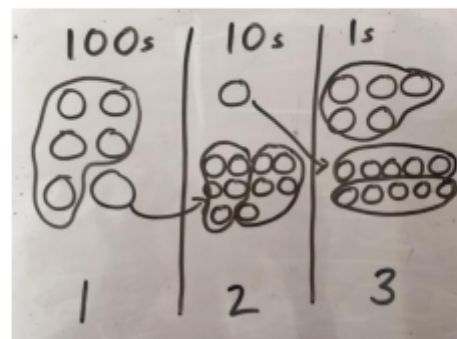
Short division using place value counters to group.

$$615 \div 5$$

100s	10s	1s
1	2	3

1. Make 615 with place value counters.
2. How many groups of 5 hundreds can you make with 6 hundred counters?
3. Exchange 1 hundred for 10 tens.
4. How many groups of 5 tens can you make with 11 ten counters?
5. Exchange 1 ten for 10 ones.
6. How many groups of 5 ones can you make with 15 ones?

Represent the place value counters pictorially.



Children to the calculation using the short division scaffold.

$$\begin{array}{r} 123 \\ 5 \overline{) 615} \\ \underline{5} \\ 11 \\ \underline{10} \\ 15 \\ \underline{15} \\ 0 \end{array}$$

Long division using place value counters

$$2544 \div 12$$




1000s	100s	10s	1s

We can't group 2 thousands into groups of 12 so will exchange them.

1000s	100s	10s	1s




We can group 24 hundreds into groups of 12 which leaves with 1 hundred.

$$\begin{array}{r} 02 \\ 12 \overline{) 2544} \\ \underline{24} \\ 1 \end{array}$$

1000s	100s	10s	1s
			

After exchanging the hundred, we have 14 tens. We can group 12 tens into a group of 12, which leaves 2 tens.

$$\begin{array}{r} 021 \\ 12 \overline{) 2544} \\ \underline{24} \\ 14 \\ \underline{12} \\ 2 \end{array}$$

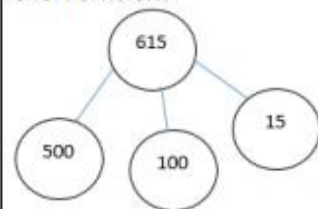
1000s	100s	10s	1s
			

After exchanging the 2 tens, we have 24 ones. We can group 24 ones into 2 group of 12, which leaves no remainder.

$$\begin{array}{r} 0212 \\ 12 \overline{) 2544} \\ \underline{24} \\ 14 \\ \underline{12} \\ 24 \\ \underline{24} \\ 0 \end{array}$$

Conceptual variation; different ways to ask children to solve $615 \div 5$

Using the part whole model below, how can you divide 615 by 5 without using short division?



I have £615 and share it equally between 5 bank accounts. How much will be in each account?



615 pupils need to be put into 5 groups. How many will be in each group?

$$5 \overline{) 615}$$

$$615 \div 5 =$$

$$\square = 615 \div 5$$

What is the calculation?
What is the answer?

100s	10s	1s
		

This policy has been approved by the Governing Body and Head teacher of St. Michael's C of E Primary School.

Chair of Governors

Signed:.....

Print Name:Katja Purvis.....

Date:.... ...15th June 2021.....

Head Teacher

Signed:.....

Print name:.....GAVIN JOHNSTON.....

Date:15th June 2021.....

