

Rishton Methodist Primary School

Calculation Policy

2019 - 2020

School Mission Statement

As a Methodist school, our values lie at the heart of all we are and do. Within our caring Christian community, where all are welcome, everyone is encouraged to be the best that they can possibly be. We promote respect, compassion and resilience to prepare our children for the challenges of an ever-changing world.

Rise uptake courage and do it" Ezra 10:4

This policy documents the mathematical concepts and procedures encountered throughout the school's approach to teaching maths, in line with Maths – No Problem! The methods and the approach are tailored to meet the expectations and objectives of the National Curriculum.

ADDITION





Adding hundreds to a three-digit number. 213 + 400 = 613 Children use Base 10 to add tens - counting on in tens to support where needed.	213 + 400 (13) (200) (13 + 600 = 613) 213 + 400 = 613 213 + 400 = 613 There are 613 pupils in Lakeside Primary School.
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time, renaming where necessary.						
Adding decimal						
numbers using the column						
method.						
1.038 + 0.984 =						
		1	1	1		
Children add the		T	T	T		
significant		1.	0	3	8	
column first and	+	0.	9	8	4	
places each		2.	0	2	2	
time, renaming						
where necessary,						
ensuring the						
digits are lined						
up, using the						
l decimai point.						





concept of tens	
and ones.	











Children	
subtract the	
ones first	
and move	
through the	
places each	
time,	
renaming	
where	
necessary.	
Subtracting	
decimal	
numbers using	
the column	2 10
method.	
3.026 - 1.624	3. 0 2 6
= 1.412	1 6 1 4
Ensure the	
digits are	1. 4 1 2
Lined up,	
using the	
decimal	
point.	

MULTIPLICATION



$2 \times 5 = 10$

Children explore doubles beginning with factors less than 10





Arrays 6 x 7 = 42 7 x 6 = 42	6
Children draw	
dots to represent	
amounts,	ěěěěě 7
understanding the	
commutative	
properties of	
arrays.	

MULTIPLICATION				
WRITTEN MULTIPLICATION				
Children use ran	ge of strategies to record			
the explorat	ion of multiplication.			
$8 \times 18 = 144$	8×£18=			
Children use a				
grid that breaks				
down the amount				
into tens and	$\begin{array}{c} 10 \\ \hline 0 \\ $			
ones to show how				
much this				
calculation	······································			
represents.	8 × 10 = 80 8 × 8 = 64			
$1144 \times 8 = 9152$				
Children break				
down each stage	1144 × 8 =			
of multiplication	11.4.4			
by a one-digit	× 8			
number as an	3 2 -> multiply by ones			
expanded method	$3 2 0 \rightarrow$ multiply by tens			
of recording, to	8 0 0 → multiply by hundreds + 8 0 0 0 → multiply by thousands			
show each stage	9152			
of the place				
value of the				
calculation.				



MULTIPLICATION FORMAL MULTIPLICATION Children use range of written strategies to record the exploration of multiplication.



then the tens, then the			
renaming where			
needed			
inceaca.			
$114 \times 24 = 2736$			
Children break			
down the lower			
value factor into	1 1 4 1 1 4 1 1 4		
tens and ones -	× 20 × 4 × 24		
when in column	2 2 8 0 4 5 6 4 5 6 114 × 4		
multiply the ones	+ 2 2 8 0		
first, then the	2736		
tens, then the			
hundreds,			
renaming where			
needed.			
DIVISION			
EA	RLY DIVISION		
Children have acce	ess to a range of `concrete'		
resources to su	apport the exploration of		
division. Divisio	n is presented to them in a		
variety of contex	ts, progressing from single		
digit division to	word problems that require		
halves using nur	nbers that are 20 or less.		
0 · 0 – 4			
0 - 2 - 4	1 There are 8 cans.		
Children organise			
objects into			
equal groups.			
This example			
shows eight cans	There are 4 boxes of 2 cans.		
grouped into			
twos.			

	Each child takes one cookie.		
$6 \div 3 = 2$			
objects by	Each child takes one more cookie.		
sharing them out			
equarry.	Each child gets 2 cookies.		
$10 \div 2 = 5$			
Children explore			
halves beginning			
with numbers			
wintch are tess			
+hap 20			

DIVISION			
WRITTEN DIVISION			
Children devel	op methods of recording		
division to show both specific answers and			
related facts.			
$12 \div 3 = 4$			
$12 \div 4 = 3$			
	12 ÷ 3		
Children use dots	\bullet \bullet \bullet $=$ 4		
to represent			
objects when	$12 \div 4$		
showing working			
out in an array.			

$2528 \div 8 = 316$	
Children identify	
related facts	2528
which are related	
(e.g. $24 \div 8 = 3$	
so $2400 \div 8 = 30$)	
to partition the	
number into	
chunks which are	300 boxes 10 boxes 5 boxes 1 box
divisible by the	2528 ÷ 8 = 300 + 10 + 5 + 1 = 316
divisor.	316 boxes are needed.
$376 \div 5 = 75$	
Children identify	3 376 ÷ 5 =
the link between	
the number discs	10 10 10 1 This refers to 26.
and the values in	She moved 20 to 376 the 6 to make 26.
the shorter	10 10 10 25 1 5 3 $\frac{7}{5}$ $\frac{5}{6}$
method - find	
related facts to	3 7 tens → 35 tens, 6 → 26.
use to divide the	376 = 370 + 6 = 350 + 26
larger number by	dividing 26 ones by 5
using	$5 \int 3 \frac{7}{7} \frac{5}{6}$ what
partitioning and	376 ÷ 5 = 75 remainder 1 remainder 1?
remainders.	
$7192 \div 31 = 232$	
Children identify	
chunks of numbers	7192 + 31 =
that they can	
subtract to find	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
out how many of	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
the divisor are	
in the dividend -	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
find related	- 3 1 0 10
facts by using	3 7 2 - 3 1 0 10
known facts to	6 2
divide the larger	
number by using	
partitioning and	
remainders.	

<pre>1989 ÷ 15 = 132 r9 Children work out how many of the divisor are in the first two digits of the dividend if taken as a whole number - subtract the answer and drop the next digit down to make the next number to divide by the divisor. Repeat and any amount left which cannot</pre>	$ \begin{array}{r} 1 3 2 r 9 \\ 1 5 1 9 8 9 \\ 1 5 1 \\ 4 8 \\ 4 5 \\ 3 9 \\ 3 0 \\ 9 \\ \end{array} $
and any amount left which cannot	
divisor is the remainder.	

TIMES TABLES

By the end of the year, children should have accurate recall of times tables and related facts (for example division) of these times tables: YEAR 2: 2, 5, 10 YEAR 3: 3, 4, 8 YEAR 4: 6, 7, 9, 11, 12

Signature from Governors:

Date:

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Signature	ог пеац	teacher.

Date: