

RISE PARK PRIMARY AND NURSERY SCHOOL


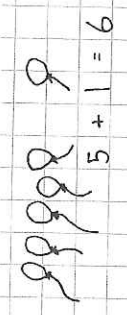
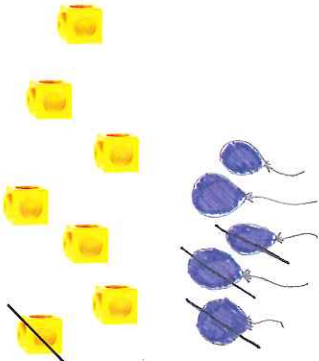

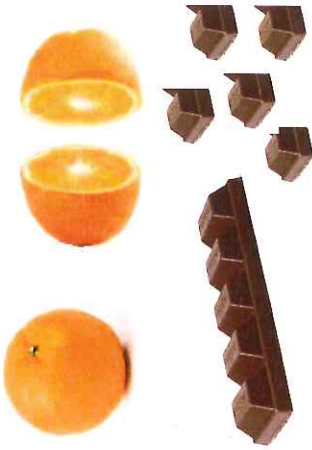
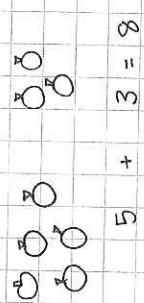
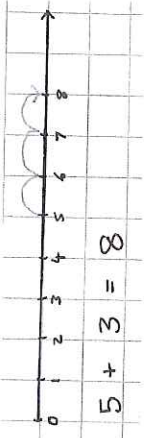

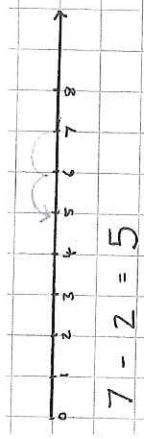

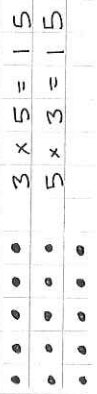




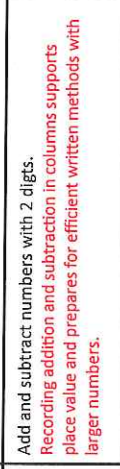
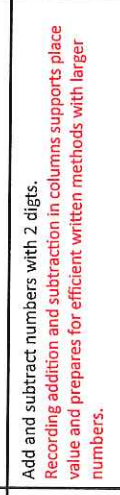
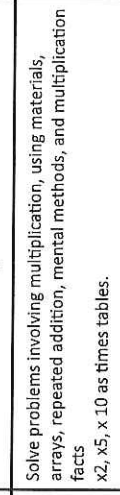
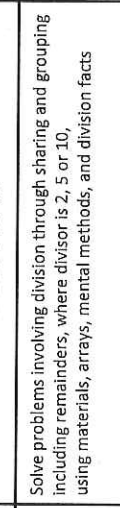
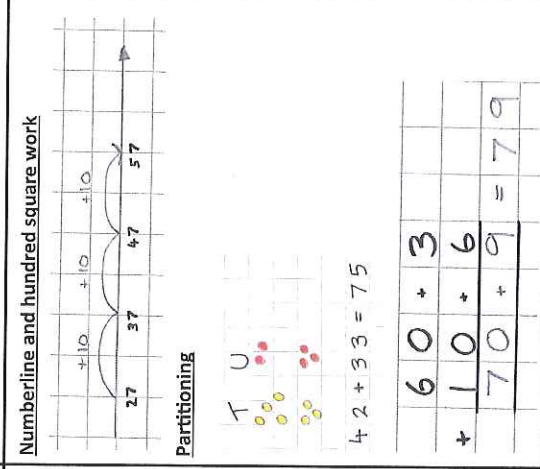
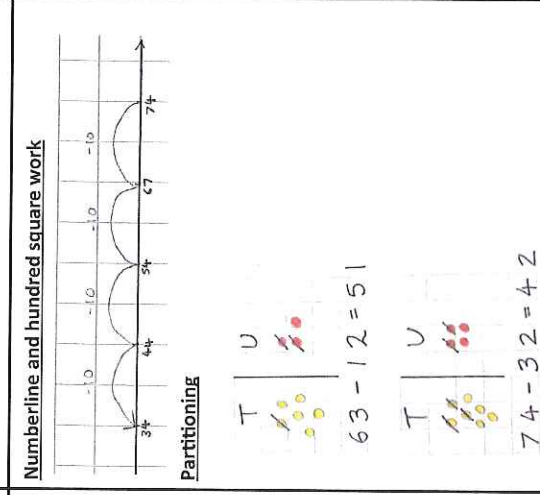
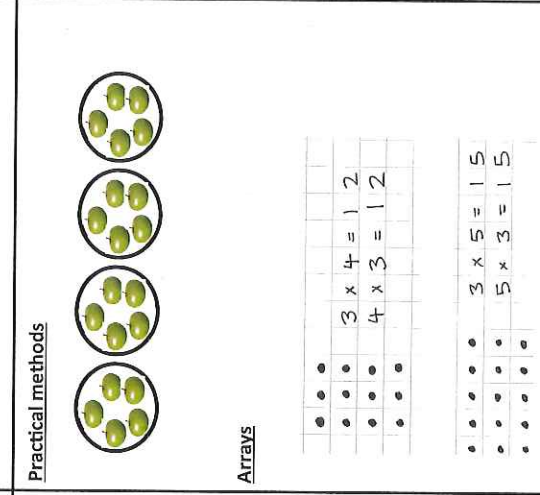
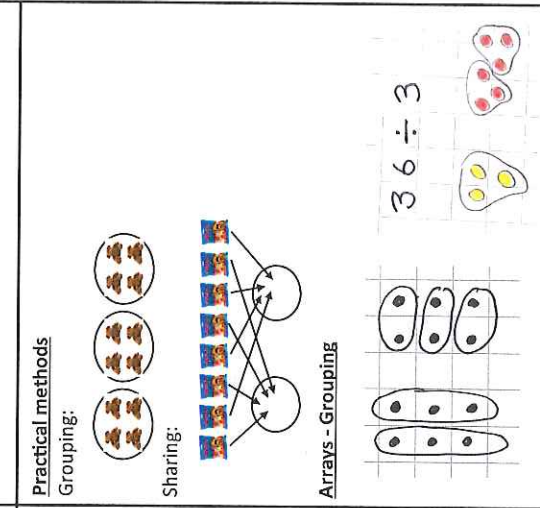
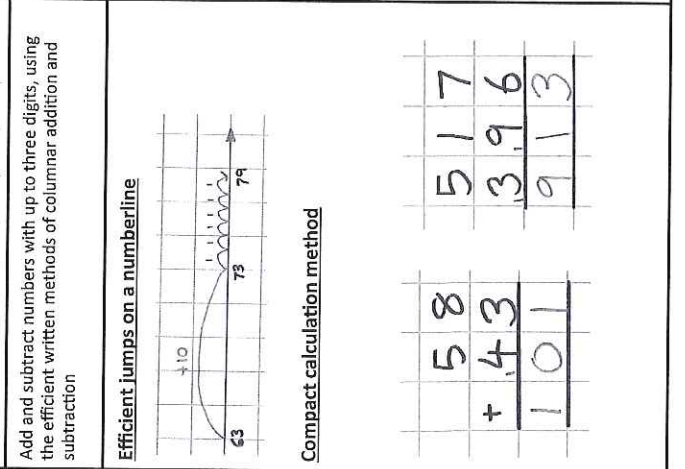
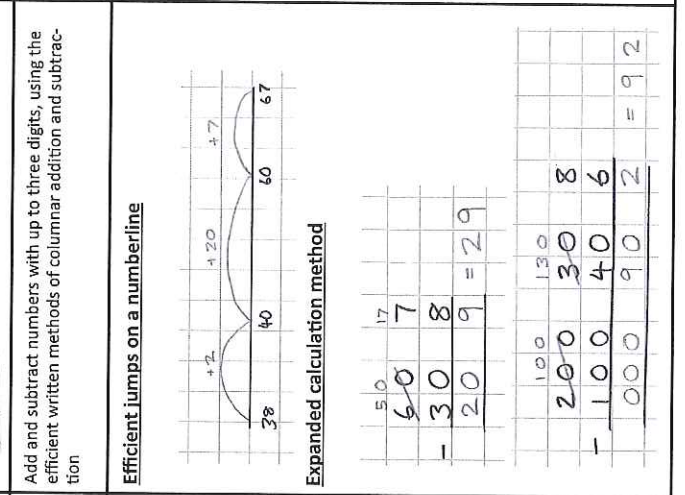
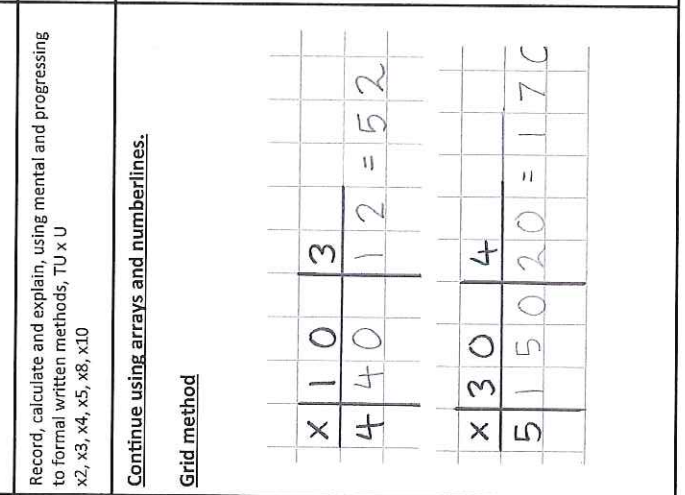
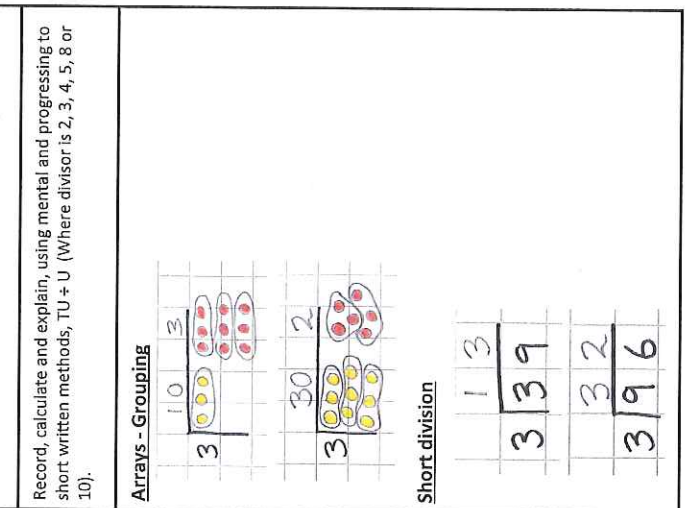
Calculation Policy

July 2019

Signed by Chair of Committee	<i>JEKinky</i>
Print Name	<i>JEKinky</i>
Date	<i>15.7.19.</i>
Date of review	July 2021

Rise Park Primary and Nursery School Written Calculation Policy - 2014 National Curriculum

	Addition	Subtraction	Multiplication	Division
FS	<p>ELG: Add one more to numbers up to 20 Puzzle Objective: Calculate 1 more without concrete support</p> <p><u>Practical methods, pictures and jottings</u></p>  <p> $5 + 1 = 6$ </p> 	<p>ELG: Take one away from numbers up to 20 Puzzle Objective: Calculate 1 less without concrete support</p> <p><u>Practical methods, pictures and jottings</u></p> 	<p>ELG: Count repeated groups of the same size in 2, 5 and 10s Puzzle Objective: Count in 2s, 5s and 10s</p> <p><u>Practical methods and pictures</u></p> 	<p>ELG: To understand the concept of sharing and halving Puzzle Objective: Use the vocabulary <i>sharing</i></p> <p><u>Practical methods</u></p> 
1	<p>Understand addition as combining amounts Add and subtract one-digit and two-digit numbers to 20, (9+9, 18-9) including zero.</p> <p><u>Practical methods, pictures and jottings</u></p>  <p> $5 + 3 = 8$ </p> <p><u>Numberline and hundred square</u></p> 	<p>Understand subtraction as 'taking away' and 'difference between' (by counting on) Add and subtract one-digit and two-digit numbers to 20, (9+9, 18-9) including zero</p> <p><u>Practical methods, pictures and jottings</u></p>  <p><u>Numberline and hundred square</u></p> 	<p>Solve practical problems that involve combining groups of 2, 5 or 10, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p><u>Practical Methods, pictures and jottings</u></p>  <p><u>Arrays</u></p>  <p> $3 \times 5 = 15$ $5 \times 3 = 15$ </p>	<p>Solve practical problems which involve sharing into equal groups. $\div 2, \div 5, \div 10$, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p><u>Practical Methods and jottings</u></p> <p><u>Sharing</u></p>  <p><u>Grouping</u></p> 

	Addition	Subtraction	Multiplication	Division
2	<p>Add and subtract numbers with 2 digits. Recording addition and subtraction in columns supports place value and prepares for efficient written methods with larger numbers.</p> 	<p>Add and subtract numbers with 2 digits. Recording addition and subtraction in columns supports place value and prepares for efficient written methods with larger numbers.</p> 	<p>Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication facts x2, x5, x10 as times tables.</p> 	<p>Solve problems involving division through sharing and grouping including remainders, where divisor is 2, 5 or 10, using materials, arrays, mental methods, and division facts</p> 
3	<p>Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction</p> 	<p>Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction</p> 	<p>Record, calculate and explain, using mental and progressing to formal written methods, TU x U</p> 	<p>Record, calculate and explain, using mental and progressing to short written methods, TU + U (Where divisor is 2, 3, 4, 5, 8 or 10).</p> 
	<p>Efficient jumps on a numberline</p> 	<p>Efficient jumps on a numberline</p> 	<p>Continue using arrays and numberlines.</p> 	<p>Arrays - Grouping</p> 

	Addition	Subtraction	Multiplication	Division								
4	<p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Solve simple problems with up to 2 decimal places.</p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 3517 \\ + 396 \\ \hline 3913 \end{array}$ $\begin{array}{r} 23.59 \\ + 1.7.55 \\ \hline 31.14 \end{array}$	<p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Solve simple problems with up to 2 decimal places.</p> <p><u>Continue efficient use of numerelines</u></p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 2000 \\ - 746 \\ \hline 1254 \end{array}$ $\begin{array}{r} 1300 \\ - 50 \\ \hline 1250 \end{array}$ $\begin{array}{r} 2382 \\ - 738 \\ \hline 1624 \end{array}$	<p>Record, calculate and explain using formal written layout TU ÷ U</p> <p><u>Short division</u></p> $\begin{array}{r} 18 \\ 3 \overline{)54} \\ \underline{36} \\ 18 \\ \underline{18} \\ 0 \end{array}$ $\begin{array}{r} 218 \\ 4 \overline{)872} \\ \underline{80} \\ 72 \\ \underline{72} \\ 0 \end{array}$	<p>Record, calculate and explain using formal written layout TU ÷ U</p> <p><u>Short division</u></p> $\begin{array}{r} 0663 \\ 8 \overline{)53024} \\ \underline{16} \\ 170 \\ \underline{160} \\ 100 \\ \underline{96} \\ 40 \\ \underline{40} \\ 0 \end{array}$ $\begin{array}{r} 1085 \text{ r } 2 \\ 9 \overline{)9767} \\ \underline{81} \\ 166 \\ \underline{145} \\ 217 \\ \underline{180} \\ 37 \\ \underline{36} \\ 1 \end{array}$								
5	<p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Decimals up to 3dp (23.74 + 48.525)</p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 19.01 \\ + 24.65 \\ + 44.70 \\ \hline 87.36 \end{array}$ $\begin{array}{r} 23481 \\ + 1362 \\ \hline 24843 \end{array}$	<p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Decimals up to 3dp</p> <p><u>Continue efficient use of numerelines</u></p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 81056 \\ - 2128 \\ \hline 78928 \end{array}$ $\begin{array}{r} 7169.0 \\ - 372.5 \\ \hline 6796.5 \end{array}$	<p>Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers ThHTU X TU</p> <p><u>Grid method</u></p> <table border="1"> <tr><td>10</td><td>200</td><td>300</td><td>400</td></tr> <tr><td>6</td><td>1200</td><td>1800</td><td>2400</td></tr> </table> <p><u>Long columnar method</u></p> $\begin{array}{r} 234 \\ \times 16 \\ \hline 1404 \\ 2340 \\ \hline 3744 \end{array}$	10	200	300	400	6	1200	1800	2400	<p>Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division. Use written division methods in cases where the answer has up to two decimal places</p> <p><u>Short division</u></p> $\begin{array}{r} 3145 \\ 27 \overline{)8426} \\ \underline{81} \\ 326 \\ \underline{270} \\ 566 \\ \underline{540} \\ 26 \\ \underline{27} \\ -1 \end{array}$
10	200	300	400									
6	1200	1800	2400									
6	<p>Consolidate and extend work in Year 5</p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 23.361 \\ + 9.080 \\ + 59.770 \\ + 1.300 \\ \hline 93.511 \end{array}$ $\begin{array}{r} 81.059 \\ + 3.668 \\ + 1.5301 \\ + 4.551 \\ \hline 104.579 \end{array}$	<p>Consolidate and extend work in Year 5</p> <p><u>Continue efficient use of numerelines</u></p> <p><u>Compact columnar method</u></p> $\begin{array}{r} 1015 \\ \times 19 \\ \hline 1930 \\ 9090 \\ \hline 19069 \end{array}$ $\begin{array}{r} 36.08 \\ \times 19 \\ \hline 693.52 \end{array}$	<p>Multiply numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication. Multiply one-digit numbers with up to two decimal places by whole numbers</p> <p><u>Grid method</u></p> <table border="1"> <tr><td>8</td><td>24</td><td>09</td><td>009</td></tr> <tr><td>3</td><td>72</td><td>27</td><td>2727</td></tr> </table> <p><u>Compact columnar method</u></p> $\begin{array}{r} 3.19 \\ \times 28 \\ \hline 2552 \end{array}$	8	24	09	009	3	72	27	2727	<p>Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division. Use written division methods in cases where the answer has up to two decimal places</p> <p><u>Long division</u></p> $\begin{array}{r} 3145 \\ 27 \overline{)8426} \\ \underline{81} \\ 326 \\ \underline{270} \\ 566 \\ \underline{540} \\ 26 \\ \underline{27} \\ -1 \end{array}$
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