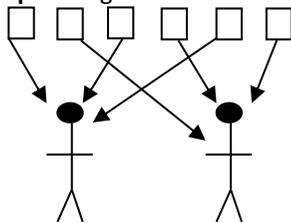


# St Francis RC Primary School – Calculation Policy

Division		
Year 1	Year 2	Year 3
<p>Halving ladybirds Hoops - sharing Even numbers half Inverse with multiplication - HA</p> <p>Children should experience practical calculation opportunities involving grouping and sharing using a wide variety of equipment.</p> <p>6 stickers are shared between 2 people, how many do they each get? Children should find the answer by counting how many cards <b>1 person</b> got.</p>  <p>There are 6 football stickers, how many people can have 2 stickers each?</p>  <p>Children should find the answer by counting how many <b>groups of 2</b> there are.</p>	<p>X tables and inverse of multiplication Grouping Families – <math>4 \times 3 = 12</math> <math>3 \times 4 = 12</math> <math>12/4 = 3</math> <math>12/3 = 4</math></p> <p>Children to use practical equipment to represent division as grouping (repeated subtraction) and use jottings to support their calculation.</p> <p>Eg. <math>12 \div 3</math>. How many groups of 3 are there in 12?</p>  <p>Children should also move onto calculations involving remainders.</p> <p>Eg. <math>13 \div 4 =</math></p>  <p><math>13 \div 4 = 3</math> remainder 1</p>	<p>Multiplication and division link/Inverse/Sharing</p> <p>Children will continue to use grouping (repeated subtraction) to represent their calculations. <math>12 \div 2 = 6</math></p>  <p>0      2      4      6      8      10      12</p> <p>Children to use number lines to emphasise that grouping is repeated subtraction.</p> <p>Children need to be able to decide what to do with remainders after division and round up/down accordingly.</p> <p>Eg. I have 62p. Sweets are 8p each. How much can I buy? Answer: 7 (the remaining 6p is not enough to buy another sweet.)</p> <p>Apples are packed in boxes of 8. There are 62 apples. How many boxes are needed? Answer: 8 (the remaining 6 apples still need a box.)</p>

## St Francis RC Primary School – Calculation Policy

Division										
Year 4	Year 5	Year 6								
<p><b>Number line chunking/ Bus stop – 4M</b></p> <p>Children are to develop their use of grouping to be able to subtract multiples of the divisor using the ‘chunking’ method, which builds on repeated subtraction from previous years.</p> <p>Children are to find the ‘biggest hunk’ (10x the divisor) and subtract that first.</p> <p>Example of chunking 72÷3</p> $\begin{array}{r} 3 \overline{) 72} \\ \underline{-30} \quad (10 \times 3) \\ 42 \\ \underline{-30} \quad (10 \times 3) \\ 12 \\ \underline{-6} \quad (2 \times 3) \\ 6 \\ \underline{-6} \quad (2 \times 3) \\ 0 \quad 24 \end{array}$ <p>Children should write the key facts in a box at the side to help identify the biggest chunks.</p> <table border="1" style="margin-left: 20px;"> <tr><td>1x</td><td>3</td></tr> <tr><td>2x</td><td>6</td></tr> <tr><td>5x</td><td>15</td></tr> <tr><td>10x</td><td>30</td></tr> </table> <p><b>NB: children should be confident and competent with their times tables and relate this to division.</b></p>	1x	3	2x	6	5x	15	10x	30	<p><b>Chunking/Inverse /Number line chunking</b> Partition <math>36/3 = 30/3</math> and <math>6/3 = 10 + 2 = 12</math> <b>Bus Stop (if known)</b></p> <p>Children are to find the ‘mega hunk’ (a larger multiple of the divisor: 30x) and subtract that first.</p> <p>196÷6</p> $\begin{array}{r} 6 \overline{) 196} \\ \underline{-180} \quad (30 \times 6) \\ 16 \\ \underline{-12} \quad (2 \times 6) \\ 4 \end{array}$ <p>Answer: 32 remainder 4 or 32 r 4.</p> <p>Children should be taught the ‘bus stop’ method for decimal and THHTU calculations <b>but only when chunking is secure.</b></p> <p><b>Bus stop method</b></p> $\begin{array}{r} \underline{032} \text{ r } 4 \\ 6 \overline{) 1916} \end{array}$ <p><b>NB: children should be confident and competent with their times tables and relate this to division.</b></p>	<p><b>Chunking and bus stop</b></p> <p>Children are to find the ‘mega hunk’ (a larger multiple of the divisor: 30x) and subtract that first.</p> <p>972÷36</p> $\begin{array}{r} 36 \overline{) 972} \\ \underline{-720} \quad (20 \times 36) \\ 252 \\ \underline{-252} \quad (7 \times 36) \\ 0 \end{array}$ <p>Answer: 27</p> <p>Remainders should be expressed as decimal fractions where possible. <b>Eg <math>352 \div 6 = 58 \frac{2}{3}</math></b></p> <p>Children should be taught the ‘bus stop’ method for decimal and THHTU calculations <b>but only when chunking is secure.</b> <b>Eg. <math>87.5 \div 7</math></b></p> $\begin{array}{r} 7 \overline{) 87.5} \\ \underline{-70.0} \quad (10 \times 7) \\ 17.5 \\ \underline{-14.0} \quad (2 \times 7) \\ 3.5 \\ 3.5 \quad (0.5 \times 7) \\ 0 \end{array}$ <p>Answer: 12.5</p> <p><b>NB: children should be confident and competent with their times tables and relate this to division.</b></p>
1x	3									
2x	6									
5x	15									
10x	30									