

Division Methods

Sharing equally	Grouping	Multiples of the divisor												
<p>Talk with the children and use items to express the following:</p> <ul style="list-style-type: none"> I have 6 counters here, how many will each child get (share them out between 3 children, saying 6 shared between 3 is 2 each) 	<ul style="list-style-type: none"> Start making the sharing more abstract, recording it as above, but also using apparatus to support this. Simple problems will be given to support this e.g. there are 12 cakes, I share them equally between 4 people, how many do they each get? $12 \div 4 = $ <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td></tr> <tr><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td></tr> <tr><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td><td style="text-align: center;">*</td></tr> </table>	*	*	*	*	*	*	*	*	*	*	*	*	<p>The children will start to relate multiplication facts to their division work, using their multiplication facts to recognise how many “lots” or “groups” can be found within a certain number.</p> <p>For example $65 \div 5 = (50 + 15) \div 5$ $= 10 + 3$ $= 13$</p> <p>So, children might recognise that 65 can be split into 50 and 15, so they will know there are 10 groups of 5 within 50, and 3 groups of 5 within 15, therefore 13 groups altogether.</p>
*	*	*	*											
*	*	*	*											
*	*	*	*											
Sharing/grouping with a remainder	Chunking	Short Division (Dividing by 1 digit)												
<ul style="list-style-type: none"> The previous methods and ideas will be applied, but now with numbers which will have numbers surplus after the groups within the number have been identified. I have 13 cakes, I share them equally among 3 friends, how many do they get each, how many will I have left? 	<p>This is a more formal method of recording multiples of the divisor, taking away groups of multiples within that number until it's not possible to get any more whole groups left.</p> $ \begin{array}{r} 72 \\ - \quad 50 \quad (10 \times 5) \\ \hline 22 \\ \quad 20 \quad (4 \times 5) \\ \hline 2 \\ \hline 14 \text{ rem } 2 \end{array} $	<p>Here the number being divided by works along the digits, starting with the most significant. What is $4 \div 3 = 1$ (goes on top) with 1 left over, gets carried over to the 5, so now it's $15 \div 3 = 5$, goes on top, then finally $6 \div 3 = 2$. The final answer is 152.</p> <p>e.g.</p> $ \begin{array}{r} 152 \\ 3 \overline{) 456} \\ \underline{3} \\ 15 \\ \underline{15} \\ 6 \\ \underline{6} \\ 0 \end{array} $												
Long Division	Vocabulary													
<p>While the previous method is very efficient, it is dependent on the children being confident in the multiplication facts which they are dividing by. This makes it much more challenging to use with 2 digit numbers.</p>	<p>Sharing, equal, dividing, division, divisor, multiplies, groups, lots of, packs, remainder, quotient,</p>													