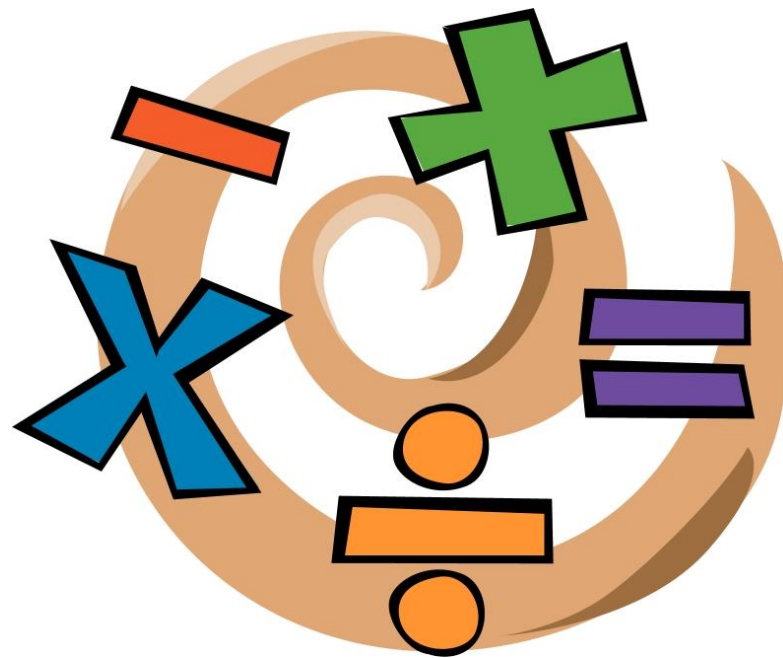


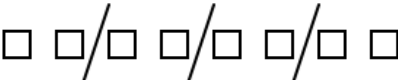
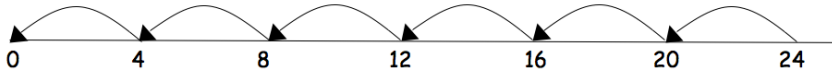
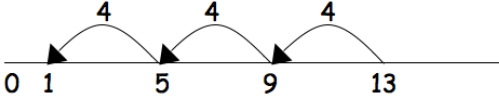
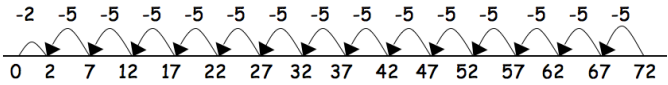
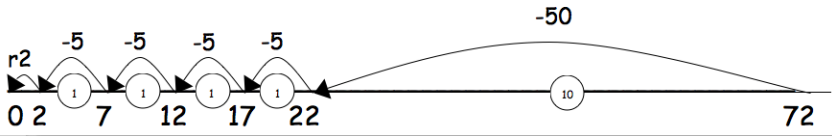


Progression in Division Methods



Yr Grp	Progression	What it Looks like...	Further Guidance																								
Yr 1	Children will understand equal groups and share items out, counting in 2s and 10s and later in 5s.																										
Yr 2	Children will develop their understanding of division as sharing equally	 <p>Share 6 sweets between 2 boys.</p>	<p><i>Using symbols to stand for unknown numbers to complete equations using inverse operations</i></p> $\square \div 2 = 4 \qquad 20 \div \triangle = 4$ $\square \div \triangle = 4$																								
	Children will develop their understanding of division as grouping	 <p>How many twos make 8?</p>																									
Yr 3	Children can use arrays to show groups	$12 \div 3 =$ <table style="display: inline-table; vertical-align: middle;"> <tr><td>*</td><td>*</td><td>*</td></tr> <tr><td>*</td><td>*</td><td>*</td></tr> <tr><td>*</td><td>*</td><td>*</td></tr> <tr><td>*</td><td>*</td><td>*</td></tr> </table> $10 \div 4 =$ <table style="display: inline-table; vertical-align: middle;"> <tr><td>*</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>*</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>*</td><td>*</td><td></td><td></td></tr> </table>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
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Children use repeated subtraction using a number line	$24 \div 4 = 6$ 	<p><i>Ensure that the emphasis in Y3 is on grouping rather than sharing.</i></p> <p><i>Using symbols to stand for unknown numbers to complete equations using inverse operations</i></p> $26 \div 2 = \square \qquad 24 \div \triangle = 12$ $\square \div 10 = 8$																									
Children should also move onto calculations involving remainders.	$13 \div 4 = 3 \text{ r } 1$ 																										

Yr4	Children will develop their use of repeated subtraction to be able to subtract multiples of the divisor.	$72 \div 5$ 								
	Children will move onto taking away 'chunks' of the divisor.		<i>This helps to prepare children for chunking.</i>							
	Children can begin to use more formal methods of recording division calculations - chunking	$72 \div 5$ <table style="margin-left: 100px;"> <tr><td>72</td></tr> <tr><td>- 50 (10 x 5)</td></tr> <tr><td>22</td></tr> <tr><td>- 20 (4 x 5)</td></tr> <tr><td>2</td></tr> </table> <p style="text-align: right; margin-right: 100px;">$10 + 4 = 14 \text{ r } 2$</p>	72	- 50 (10 x 5)	22	- 20 (4 x 5)	2			
72										
- 50 (10 x 5)										
22										
- 20 (4 x 5)										
2										
Yr5	<p>HTU \div U using chunking</p> <p>Children will move on to chunking when dividing 2 digits</p> <p>HTU \div TU, ThHTU \div TU</p>	$256 \div 7$ <table style="margin-left: 100px;"> <tr><td>$7 \overline{) 256}$</td></tr> <tr><td>- 140 (20 x 7)</td></tr> <tr><td>116</td></tr> <tr><td>- 70 (10 x 7)</td></tr> <tr><td>46</td></tr> <tr><td>- 42 (6 x 7)</td></tr> <tr><td>4</td></tr> </table> <p style="text-align: center;">Answer is 36 remainder 4</p>	$7 \overline{) 256}$	- 140 (20 x 7)	116	- 70 (10 x 7)	46	- 42 (6 x 7)	4	<i>Using inverse to check</i>
$7 \overline{) 256}$										
- 140 (20 x 7)										
116										
- 70 (10 x 7)										
46										
- 42 (6 x 7)										
4										
	HTU \div U using bus stop	$6 \overline{) 196} \text{ r } 4$								

Yr6	Children will use the standard long division method to divide by 2 or more digits HTU ÷ TU, ThHTU ÷ TU	$432 \div 15$ $\begin{array}{r} 28 \text{ r } 12 \\ 15 \overline{) 432} \\ \underline{30} \\ 132 \\ \underline{120} \\ 12 \end{array}$	
	Continue to use bus stop when dividing by 1 digit HTU ÷ U	$\begin{array}{r} 32 \text{ r } 4 \\ 6 \overline{) 196} \\ \underline{18} \\ 16 \\ \underline{12} \\ 4 \end{array}$	
	Representing remainders as a fraction for both short and long division	$432 \div 15 = 28 \text{ r } 12$ 12 left out of 15 $\frac{12}{15} = \frac{4}{5}$ $196 \div 6 = 32 \text{ r } 4$ 4 left out of 6 $\frac{4}{6} = \frac{2}{3}$	<i>Use knowledge of simplifying fractions</i>
	Representing remainders as decimals for both short and long division	$432 \div 15$ $\begin{array}{r} 28.8 \\ 15 \overline{) 432.0} \\ \underline{30} \\ 132 \\ \underline{120} \\ 120 \\ \underline{120} \\ 0 \end{array}$ $\begin{array}{r} 14.2 \\ 5 \overline{) 71.0} \\ \underline{21} \\ 50 \\ \underline{50} \\ 0 \end{array}$	<i>Continue this method to divide decimals by whole numbers.</i>

Children should not be made to go onto the next stage if: they are not ready or they are not confident.

Once children have mastered strategies for their appropriate year group, they should not be moved onto the next year group but instead develop breadth of understanding through rich tasks that require application of knowledge and skills.