



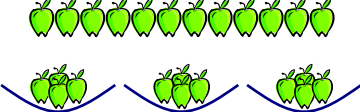
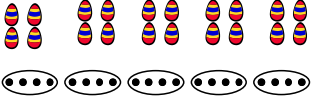
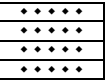
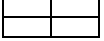
DIVISION

AGE-RELATED EXPECTATIONS

← Recording →

Rapid Recall

Mental calculation

YR	Share objects into equal groups and count how many in each group	<p>Practical / recorded using ICT (eg digital photos / pictures on IWB)</p> <p>Pictures / Objects</p> <p>6 cakes shared between 2 </p> <p>Use vocabulary : sharing fairly, equally, evenly</p>	<p>Symbols</p> <p>6 cakes shared between 2 </p> <p>3 cakes each</p>		<i>(see recording)</i>
Y1	Solve (practical) problems that involve sharing into equal groups	<p>Practical / recorded using ICT</p> <p>Pictures / Symbols</p> <p>How many apples in each bowl if I share 12 apples between 3 bowls?</p> 	<p>Introduce concept of dividing shapes, pizza, cakes, apples etc into halves and quarters</p> <p>Reinforce vocabulary of sharing equally, fairly, evenly</p>		<i>(see recording)</i> Explore halving numbers through odd and even numbers
Y2	<p>Division as sharing and grouping (including remainders)</p> <p>TU ÷ U (where divisor is 2, 5 or 10)</p>	<p>Pictures / Symbols</p> <p>Four eggs fit in a box. How many boxes would you need to pack 20 eggs?</p> 	<p>Informal jottings / Arrays</p> <p>20 ÷ 4 = 5</p>  <p>Use of sharing mats and sharing circles</p>	<p>Derive / recall ÷ facts for 2, 5 and 10 tables</p> <p>Derive / recall halves of even numbers to 40</p>	TU ÷ 2
Y3	<p>TU ÷ U (where divisor is 2, 3, 4, 5, 6 or 10)</p> <p>Round remainders up / down, depending on the context</p>	<p>Introduce concept of division as repeated subtraction</p> <p>18 ÷ 6 = 1 8</p> $\begin{array}{r} -6 \\ 12 \\ -6 \\ 6 \\ -6 \\ 0 \end{array}$ <p>(1 x 6) (1 x 6) (1 x 6)</p> <p>Answer = 3 (I have subtracted 3 lots of 6)</p>	<p><i>When covering remainders, do it visually and practically.</i></p> <p>E.g using boxes: If I share 13 eggs into this kind of box:</p>  <p>How many eggs will I have left over?</p>	<p>Derive / recall ÷ facts for 2, 3, 4, 5, 6 and 10 tables</p>	TU / HTU ÷ 2
Y4	<p>Record, support and explain:</p> <p>TU ÷ U (eg 98 ÷ 6)</p>	<p>Introduce 'Chunking' (subtracting multiples of the divisor)</p> <p>e.g. 72 ÷ 6 =</p> $\begin{array}{r} 6 \overline{) 72} \\ - 60 \\ 12 \\ - 12 \\ 0 \end{array}$ <p>(10 lots of 6) (2 lots of 6)</p> <p>Answer = 12 (I have subtracted 12 lots of 6 altogether)</p>	<p>Progress onto HTU ÷ U by subtracting multiples of 10 e.g.</p> <p>165 ÷ 5 =</p> $\begin{array}{r} 5 \overline{) 165} \\ - 50 \\ 115 \\ - 50 \\ 65 \\ - 50 \\ 15 \\ - 15 \\ 0 \end{array}$ <p>(10 x 5) (10 x 5) (10 x 5) (3 x 5)</p> <p>Answer = 33 (I have subtracted 33 lots of 5)</p>	<p>Derive / recall ÷ facts up to the 10 times table</p>	<p>Numbers up to 1000 ÷ 10 / 100 (whole number answers and understand the effect)</p> <p>Halves of TU / HTU numbers and multiples of 10 / 100</p>
Y5	<p>Refine and use efficient methods:</p> <p>HTU ÷ U</p>	<p>Chunking with larger numbers so that larger multiples must be subtracted</p> <p>196 ÷ 6 =</p> $\begin{array}{r} 32 \text{ r } 4 \\ 6 \overline{) 196} \\ - 180 \\ 16 \\ - 12 \\ 4 \end{array}$ <p>(30 lots of 6) (2 lots of 6)</p>	<p>Knowledge of the times tables is ESSENTIAL here. The aim is to subtract the largest chunk possible</p>	<p>Recall quickly ÷ facts up to 10 times table</p>	<p>Divide using factors of the divisor (eg ÷8 by ÷2 and ÷4)</p> <p>Divide numbers by 10 / 100 / 1000 (describe the effect)</p> <p>Halves of U.t / 0.th</p>
Y6	<p>Use efficient methods:</p> <p>Integer ÷ U (eg 123 ÷7) Decimal ÷ U (eg 27.6 ÷8) HTU ÷ TU</p>	<p>The same method of chunking is used to include decimals</p> <p>25.6 ÷ 8 (estimate first : 24 ÷ 8 = 3)</p> $\begin{array}{r} 3.2 \\ 8 \overline{) 25.6} \\ - 24.0 \\ 1.6 \\ - 1.6 \\ 0 \end{array}$ <p>(3.0 x 8) (0.2 x 8)</p>	<p>Short division methods are introduced when pupils have a firm understanding of all previous division learning</p> <p>Pupils can then be taught to show remainders as a decimal</p> $\begin{array}{r} 31.50 \\ 4 \overline{) 126.00} \end{array}$	<p>Derive ÷ facts involving multiples of 10 / 100 (eg 240 ÷ 30) and decimals (eg 4.8 ÷ 6)</p>	<p>Divide using factors of the divisor (eg ÷15 by ÷5 and ÷3)</p> <p>TU ÷ U U.t ÷ U Integer ÷ 1000 / 100 / 10</p>

Estimate first

