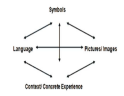


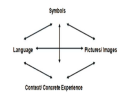

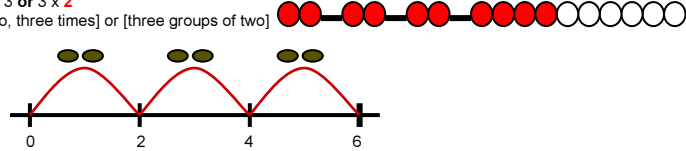
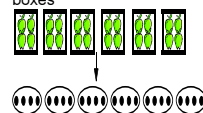
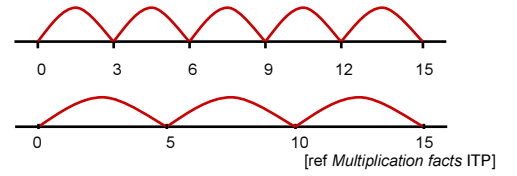
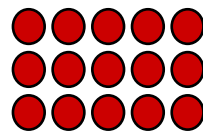
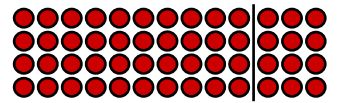
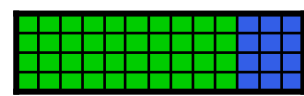
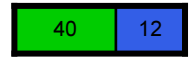
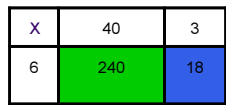
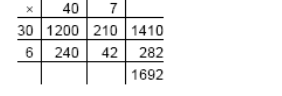
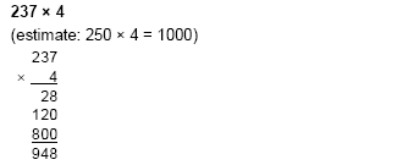
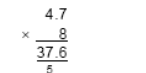
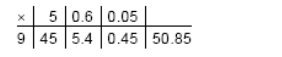
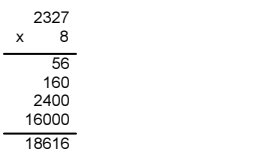
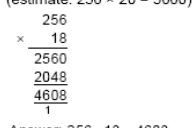


<p>YR</p>	<p>Count repeated groups of the same size (1s / 2s / 5s / 10s)  ref Overview of learning 5</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p>REAL EXPERIENCES Pictures / Objects 3 plates, 2 cakes on each plate:</p> 	<p>Symbols 3 plates, 2 cakes on each plate:</p> 	<p>Counting on in 1s and 2s</p>	<p>(see recording)</p>	
<p>Y1</p>	<p>Solve (practical) problems that involve combining groups of 2, 5 or 10</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p>Pictures / Symbols There are three sweets in one bag. How many sweets are there in five bags?</p> 	<p>Number tracks / Number line (modelled using bead strings) 2 x 3 or 3 x 2 [two, three times] or [three groups of two]</p> 	<p>Count on / back in 1s, 2s, 5s and 10s  Doubles of numbers to 10</p>	<p>(see recording)</p>	
<p>Y2</p>	<p>Multiplication as repeated addition and arrays</p>	<p>REAL EXPERIENCES Pictures / Symbols There are four apples in each box. How many apples in six boxes?</p> 	<p>Repeated addition 5 x 3 or 3 x 5</p>  <p>[ref Multiplication facts ITP]</p>	<p>Arrays 5 x 3 or 3 x 5</p>  <p>Also 14 x 2 as (10 x 2 and 4 x 2)</p>	<p>Count in 2s, 5s and 10s Derive multiples of 2, 5 &amp; 10 Relate to x facts (and derive related ÷ facts)  Doubles of numbers to 20</p>	<p>Doubles of TU numbers</p>	
<p>Y3</p>	<p>TU x U (eg 13 x 4)</p>	<p>REAL EXPERIENCES – CONNECTIVE MODEL Arrays 13 x 4</p>  <p>10 x 4 = 40 3 x 4 = 12 [ref Arrays spreadsheet]</p>	<p>Expanded grid method 13 x 4</p> 	<p>Compact grid method 13 x 4</p> 	<p>Partitioning (possible use of number line to record steps)  13 x 4 = 52 10 x 4 = 40 3 x 4 = 12</p>	<p>Derive / recall 2, 3, 4, 5, 6 and 10 times tables (Derive related division facts)  Recognise multiples of 2, 5 and 10 up to 1000</p>	<p>U / TU x 10 / 100 (describe the effect)  Doubles of TU / HTU numbers</p>
<p>Y4</p>	<p>Record, support and explain:  TU x U (eg 16 x 8; 43 x 6)</p>	<p>Partitioning  43 x 6 (estimate: 40 x 6 = 240)  40 x 6 = 240 3 x 6 = 18</p>	<p>Compact grid method 43 x 6</p>  <p>[ref Multiplication grid ITP]</p>	<p>Expanded vertical  43 x 6 — 18 (3 x 6) 240 (40 x 6) — 258</p>	<p>Formal vertical  43 x 6 — 258</p>	<p>Derive / recall facts to 10 x 10  Multiples of numbers to 10 up to the 10<sup>th</sup> multiple</p>	<p>Numbers up to 1000 x 10 / 100 (whole number answers and understand the effect)  Doubles of TU / HTU numbers and multiples of 10 / 100</p>
<p>Y</p>	<p>Refine and use efficient methods:  HTU x U TU x TU U.t x U</p>	<p>Grid method  47 x 36 (estimate: 50 x 40 = 2000)</p> 	<p>Expanded vertical  237 x 4 (estimate: 250 x 4 = 1000)</p> 	<p>Formal vertical  4.7 x 8 (estimate: 5 x 8 = 40)</p> 	<p>Recall quickly facts to 10 x 10 Use facts to multiply pairs of multiples of 10 / 100  Use known facts to derive other facts [Find common multiples of two numbers] 5</p>	<p>TU x U (eg 12 x 9) TU x TU (eg 16 x 25)  Doubles of U.t / 0.th  Multiply whole numbers / decimals by 10 / 100 / 1000</p>	
<p>Y6</p>	<p>Use efficient methods:  Integer x U (eg 2307 x 8) Decimal x U (eg 31.6 x 7) TU x TU HTU x TU</p>	<p>Grid method  5.65 x 9 (estimate: 6 x 9 = 54)</p>  <p>Answer: 5.65 x 9 = 50.85</p>	<p>Expanded vertical  2327 x 8 (estimate: 2300 x 10 = 23 000)</p> 	<p>Formal vertical  256 x 18 (estimate: 250 x 20 = 5000)</p>  <p>Answer: 256 x 18 = 4608</p>	<p>Use facts up to 10 x 10 to derive facts involving multiples of 10 / 100 (eg 80 x 30) and decimals (eg 0.8 x 7)  Derive squares of numbers to 12 x 12 Derive corresponding squares of multiples of 10</p>	<p>TU x U U.t x U  Integer x 1000 / 100 / 10 / 0.1 / 0.01</p>	

Estimate first

