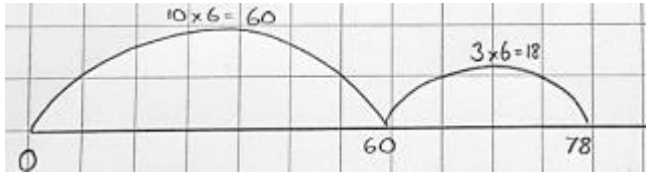
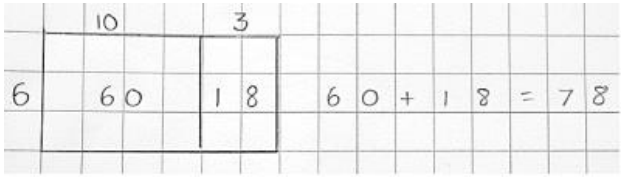
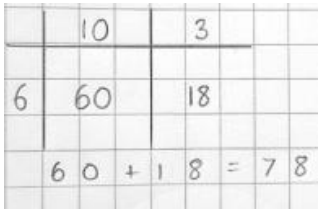
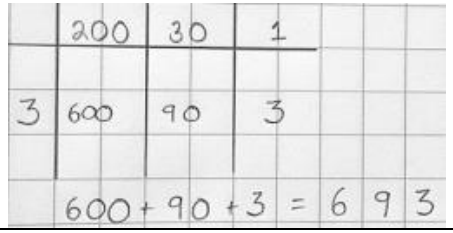
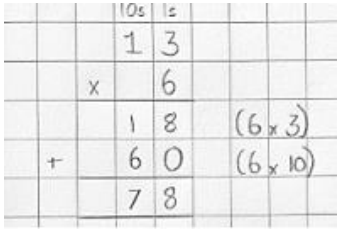
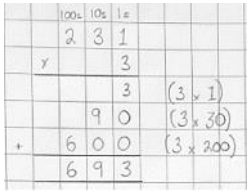
Multiplication – Year 4

Selected National Curriculum Programme of Study Statements Pupils should be taught to:	**The Big Ideas (NCTEM)**
• recall multiplication and division facts for multiplication tables up to 12 × 12. • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations. • • multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.	Children understand what multiplication means and see division as both grouping and sharing, and to see division as the inverse of multiplication. The distributive law can be used to partition numbers in different ways to create equivalent calculations. For example, 4 × 27 = 4 × (25 + 2) = (4 × 25) + (4 × 2) = 108. Looking for equivalent calculations can make calculating easier. For example, 98 × 5 is equivalent to 98 × 10 ÷ 2 or to (100 × 5) – (2 × 5). The array model can help show equivalences.

Stage 1	**Stage 2**	**End of year expectation**
Recall multiplication and division facts for multiplication tables up to 12 × 12. Using efficient jumps on a number line when working with larger calculations, e.g: 13 x 6 = □  13 x 6 =78 Box Array, e.g: 13 x 6 = □  13 x 6 =78	Recall multiplication and division facts for multiplication tables up to 12 × 12. 2 x 1 grid method, e.g: 13 x 6 = □  13 x 6 =78 3 x 1 grid method, e.g: 231 x 3 = □  	Recall multiplication and division facts for multiplication tables up to 12 × 12. 2 x 1 expanded formal method, e.g: 13 x 6 = □  13 x 6 =78 3 x 1 expanded formal method, e.g: 231 x 3 = □ 

HIAS Progression in Calculation

Division – Year 4

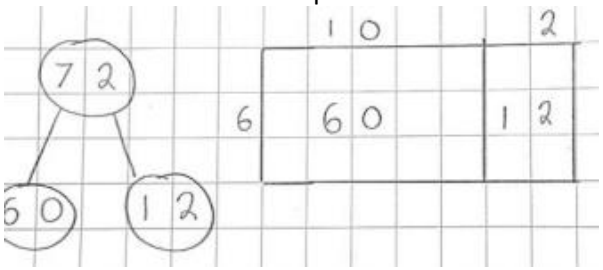
Selected National Curriculum Programme of Study Statements Pupils should be taught to:	**The Big Ideas (NCETM)**
• multiplication and division facts for multiplication tables up to 12 × 12. • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations. • Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (non-statutory)	Children understand what multiplication means and see division as both grouping and sharing, and to see division as the inverse of multiplication. The distributive law can be used to partition numbers in different ways to create equivalent calculations. For example, 4 × 27 = 4 × (25 + 2) = (4 × 25) + (4 × 2) = 108. Looking for equivalent calculations can make calculating easier. For example, 98 × 5 is equivalent to 98 × 10 ÷ 2 or to (100 × 5) – (2 × 5). The array model can help show equivalences.

Stage 1

Recall and use multiplication and division facts for multiplication tables up to 12 x 12.

Partitioning, e.g:

72 children go camping. There are 6 tents. How many children can sleep in each tent?



I know 60 ÷ 6 = 10 and 12 ÷ 6 = 2

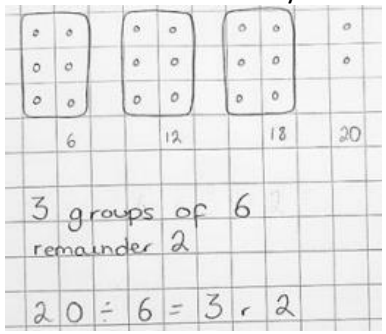
10 + 2 = 12

72 ÷ 6 = 12

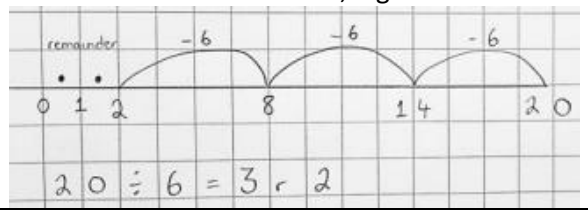
Stage 2

Division with remainders. Arrays, e.g:

20 eggs in boxes of 6. How many boxes of eggs?



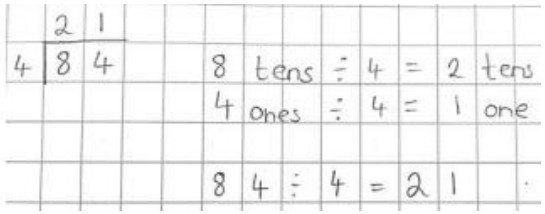
Number line, e.g:



End of year expectation

Short division (up to 3-digit by 1-digit).

84 ÷ 4 = □



705 ÷ 5 = □