WAYCROFT
MULTI ACADEMY TRUST

Living and Learning Together

Progression in Written Calculation Year 4

This progression in written calculations has been written in consultation with the teaching staff and the New Curriculum for Mathematics to suit the current needs of our children.

Please note that children will move through this progression at different rates and teachers will use their professional judgement to decide when the most appropriate time is to move the children on. There may be occasions when other methods will be taught to suit the needs of individual pupils.

MULTIPLICATION

By the end of Year 4, Children should be able to:
- Multiply two-digit and three-digit numbers by a one-digit number (TO x O and HTO x O).
- Recall multiplication and division facts for multiplication tables up to 12 x 12.

Partitioning: This method is used during mental arithmetic tasks rather than being a written calculation.

e.g. $63 \times 8 = (60 \times 8) + (3 \times 8)$
                $= 480 + 24$
                $= 504$

Formal written method for short multiplication (TO x O) e.g. 52 x 7	**Formal written method for short multiplication (HTO x O)** e.g. 342 x 7

                5   2
 	
        ×   7
     ―――――――――
     3   6   4
     ―――――――――
                1
	
	                3 4 2
	
	        × 7
	     ―――――――――――
	     2 3 9 4
	     ―――――――――――
	                2 1

DIVISION

By the end of Year 4, Children should be able to:
- Divide numbers up to three digits by a one-digit number using the formal written method of short division without remainders. (TO ÷ O and HTO ÷ O).
- Recall multiplication and division facts for multiplication tables up to 12 x 12.

Formal written method for short division (TO x O) e.g. 96 ÷ 4	**Formal written method for short division (HTO ÷ O)** e.g. 865 ÷ 6

       2   4
     ┌――――
          1
   4 │ 9   6
	
	       1 4 4
	     ┌―――――――
	          2 2
	   6 │ 8 6 4

ADDITION
By the end of Year 4, Children should be able to: • Add whole numbers with up to four digits.
Formal written method of addition, involving whole numbers *e.g. 5378 + 2456*

        5   3   7   8
 	
+   2   4   5   6
        7   8   3   4
            1   1

SUBTRACTION
Oral work, practical activities, informal jottings; picture, words and symbols.
By the end of Year 4, Children should be able to: • Subtract whole numbers with up to four digits.

Formal written method of subtraction, involving whole numbers *e.g. 6318-2546*
 	
         5   12   1
        6̸   3̸   1   8
-    2   5   4   3
      3   7   7   5