# Which method will my child be using?

# **Addition**



#### <u>Year 5</u>

Children will continue to use the carrying method to solve calculations such as:

3 3 6 4		3	I	2	Ι			3		
+ 247				3	7		+	2		
3611	+		I	4	8	_		6	•	
		3	3	0	6					
			Ι	1		-				

Place value counters will be used as a practical resource to support understanding. They will also be adding:

- several numbers with different numbers of digits, understanding the place value;
- decimals with up to two decimal places (with each number having the same number of decimal places), knowing that the decimal points line up under one another.
- amounts of money and measures, including those where they have to initially convert from one unit to another

## **Subtraction**

#### <u>Year 5</u>

Children should continue to use the decomposition method to solve calculations such as:

6 6	2   13
$\mathcal{F}^{1}0 \mathcal{F}^{1}2$	$\overline{X}$ . $\overline{A}$ 2
- 3 2 2 6	-   . 7 6
3 8 4 6	I. 6 6

They will also be subtracting:

- numbers with different numbers of digits, understanding the place value;
- decimals with up to two decimal places (with each number having the same number of decimal places), knowing that the decimal points line up under one another.
- amounts of money and measures, including those where they have to initially convert from one unit to another

Practical resources such as base ten and place value counters should be available for children who require them to aid understanding.

# **Multiplication**

### <u>Year 5</u>

Children should continue to use the grid method and extend it to multiplying numbers with up to four digits by a single digit number, e.g.  $4346 \times 8$ 

 ×	4 000	300	40	6	+	32000 2400
0	32 000	2400	320	48	+	320
8	32 000	2400	320	40	+	48
					-	34768

and numbers with up to four digits by a two-digit number, e.g. 2693 × 24

×	2000	600	90	3		40000
^	2000	000	000 90 .		+	8000
20	20 40000		2000 1800	60	+	12000
20	40000	12000	1800	00	+	2400
4	8000	2400	240	12	+	1800
4	8000	2400	360	12	+	360
					+	60
					+	12
					_	64632

Once confident with the grid method for multiplication, children can then progress to using expanded columnar methods.

eg 4326 x 7

<u>Only when children are confident and accurate using these methods should they be shown the standard formal methods for short multiplication and long multiplication.</u>

Short multiplication

$$\begin{array}{r}
 4 3 2 6 \\
 x 7 \\
 \hline
 3 0 2 8 2 \\
 \hline
 2 1 4
\end{array}$$

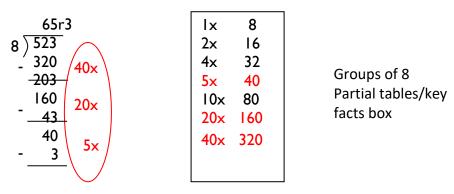
Long multiplication						
24 × 16 becomes	124 × 26 becomes	124 × 26 becomes				
2	1 2	1 2				
2 4	1 2 4	124				
× 1 6	× 26	× 26				
2 4 0	2 4 8 0	7 4 4				
1 4 4	7 4 4	2 4 8 0				
3 8 4	3 2 2 4	3 2 2 4				
	1 1	1 1				
Answer: 384	Answer: 3224	Answer: 3224				

Children should also be using these methods to solve problems and multiply numbers in the context of money or measures.

## **Division**

### <u>Year 5</u>

Children may continue to use the key facts box for as long as they find it useful. Using their knowledge of linked multiplication facts, children should be encouraged to use higher multiples of the divisor. Any remainders should be shown as integers, e.g.  $523 \div 8 = 65$  remainder 3.



By the end of year 5, children should be able to use the chunking method to divide a four digit number by a single digit number. If children still need to use the key facts box, it can be extended to include 100x e.g.  $2458 \div 7 = 351$  remainder 1.

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Groups of 7 Partial tables/key facts box

<u>Once children are confident and accurate when dividing by a single digit using partial tables, they can</u> progress to the standard formal written method for short division

Children should be able to solve real life problems including those with money and measures. They need to be able to make decisions about what to do with remainders after division and round up or down accordingly.