Year 3

Addition

Partitioning

Use place value knowledge to partition the numbers and add each part

3	4	7	+	1	3	6	=		
3	0	0	+	1	0	0	=	4	0	0
4	0	+	3	0	=	7	0		
7	+	6	=	1	3				
4	0	0	+	7	0	+	1	3	=	4	8	3

Expanded column addition

Children are shown how expanded column addition builds upon partitioning

```
    400   60   6
    300   50   8
+   100   10
    _____
    800   20   4
```

Compact column addition

*Children **quickly** move to practising compact column addition.*

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

Fractions

Recognise fractions that add to 1.

$$\frac{1}{4} + \frac{3}{4} = 1$$

Subtraction

Partitioning

Use place value knowledge to partition the numbers and subtract each part

6	8	–	4	2	=		
6	0	–	4	0	=	2	0
8	–	2	=	6			
2	0	+	6	=	2	6	

Subtraction

Counting up
Find a difference between two numbers by counting up from the smaller to the larger

$121 - 87 = 34$

$3 + 10 + 21 = 34$
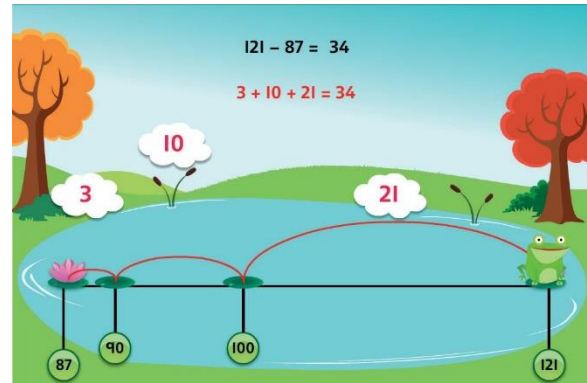
Fractions
Recognise complements of any fraction to 1

$$1 - \frac{3}{5} = \frac{2}{5}$$

Multiplication

Multiplication facts
Become fluent with 1-5, 8 and 10 times tables

$$4 \times 4 = 16$$

Partitioning to double
Find doubles of numbers to 50 using partitioning

$$48$$
$$40 \qquad 8$$
$$80 \qquad 16$$
$$80 + 16 = 96$$
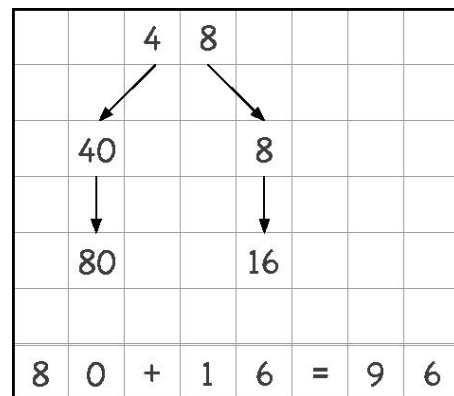
Grid method
Build on partitioning to develop grid multiplication

×	20	3	
4	80	12	= 92

Division

Partitioning to halve

Find half of even numbers to 100 using partitioning

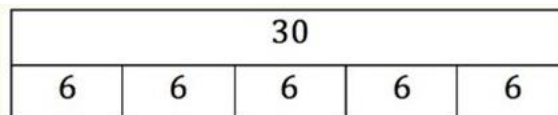|	4	8
	40	8
	20	4

2	0	+	4	=	2	4
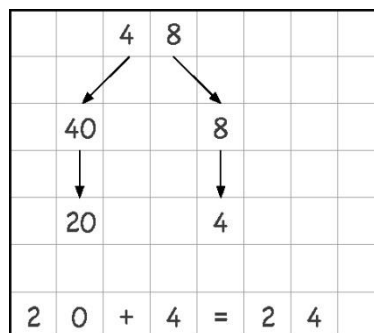
Short division

Perform divisions just above the 10th multiple, understanding how to give a remainder as a whole number

$$
\begin{array}{c|cc}
 & 1\ 4\ \text{r}\ 1 \\
\hline
3 & 4\ {}^1 3 \\
\end{array}
$$
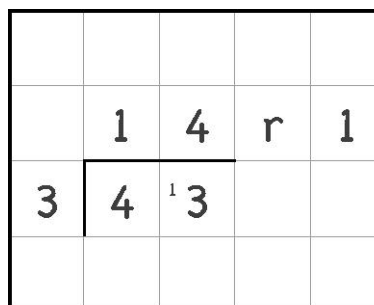
Fractions

Use bar modelling to find unit and simple non-unit fractions of amounts within the times-tables

30				
6	6	6	6	6

$\frac{1}{5}$ *of 30 = 6*

$\frac{3}{5}$ *of 30 = 18*