Yr 6 Addition- By the end of year 6

Adding whole numbers and decimals using column addition

HTO. t h

£1 2 4. 5 4
+ £ 7 6. 3 5
_____

- Solve multi-step problems involving addition in contexts, deciding which operations and methods to use and why

Peter has £10. He buys 3 kg of potatoes at 87p per kg and 750 g of tomatoes at £1.32 per kg. How much money does he have left?

- Estimate to check your answer

Children to apply and explain what they have learnt by completing a Mastery Map

Mastery Map

Write a calculation based on what you've learnt:	Draw a diagram /use equipment to show your understanding of the problem:
Solve a worded problem or write your own story or worded problem:	Where else would you see this problem in real life or other areas of Maths?

Yr 6 Multiplication- By the end of year 6

Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)

Multiply numbers up to 4 digits by 2 digit numbers using the formal written method of long multiplication (start with showing the grid method)

HTO X TO

X	200	80	6		
20	4000	1600	120	=	5720
9	1800	720	54	=	2574
					8294

Move onto long multiplication

$$\begin{array}{r} 286 \\ \times\ 29 \\ \hline 2574 \\ {\scriptstyle 11}\ \ \ \ \\ +\ 5720 \\ \hline 8294 \end{array}$$

Multiply one-digit numbers with up to two decimal places by whole numbers (using the column and grid method)

O.t x O	O.t h x O
1.3 x 4 =5.2	3.65 x 5 = 18.25

Children to apply and explain what they have learnt by completing the Mastery Map

Yr 6 Division- By the end of year 6

To calculate half of any number

Consolidate different methods of division (short division, chunking, mental methods, jottings)

Encourage children to look at the calculation given. If the question is written within a method, use the method given. If not, choose the most appropriate method based on the numbers involved (eg recall a known fact, calculate mentally, use a jotting, use a written method).

Short division:

```
        3 1          4 3 0          7 0
23 ) 7 ⁷1 ²3   17 ) 7 ⁷3 ⁵1  0   15)1 ¹0 ¹5 0
```

Introduce long division:

```
      2 8 r12
15 ) 4 3 2
     3 0
       1 3 2
       1 2 0
         1 2
```

Remainder = 12/15 = 4/5 = 0.8

Use a written method in problems where the answer has up to 2 decimal places

Divide decimal numbers (O.t ÷ O)

£20.60 is shared equally amongst 5 friends. How much do they each receive?

```
    £ 0 4 . 1 2
5 ) £ 2 ²0 . 6 0
```

Interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

Use Numicon to show remainders:

37 ÷ 5 =

The remainder is 2/5

Some children go camping. There are 70 children. Each tent takes up to 6 children. What is the least number of tents they will need?

Children to apply and explain what they have learnt by completing the Mastery Map

Yr 6 Subtraction- By the end of year 6

Subtraction involving Th, H, T, O and use of number lines (including decimals also)

A Toyota car costs £6 495 and Gina has saved £4 890 towards the cost of the car so far. How much more does Gina need to save?

Progression of money related questions (exchange H, T and O) and use of noughts in amounts:

A.
£ ~~4~~ 5.~~12~~ ~~3~~ 1 5
- £ 2. 8 7
£ 2. 4 8

B.
£ 3 ~~7~~ ~~8~~ 1 0
- £ 1. 3 9
£ 2. 4 1

C.
£ ~~3~~ 9 ~~4~~. ~~1~~ ~~0~~ 1 0
- £ 1. 3 5
£ 2. 6 5

D.
£ ~~7~~ ~~8~~. ~~1~~ 08
- £ 2. 71
£ 5. 37

Use overlapping Numicon to help children understand the subtraction of decimals

The Numicon 1 piece represents 0.1
e.g. 2.2 - 0.9

Reinforce and securing all of the above.

Work towards children choosing an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)

Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

To Edinburgh is 385.83 miles away from North Finchley. If Ali drove 196.23 miles on Tuesday and 35.43 miles on Wednesday, how much further does he have to travel until he gets there?

Children to apply and explain what they have learnt by completing the Mastery Map