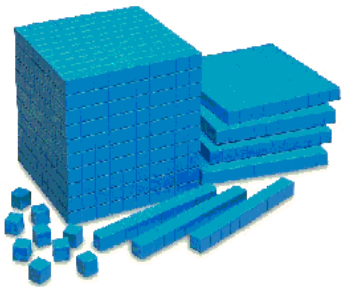
Yr 5 Addition

Column addition (with numbers with more than 4 digits) and decimals to 2 decimal places

- **Add numbers mentally with increasingly large numbers**

(Use place value counters or Dienes to make each number)



Eg 4500 plus 1050 (Vary the addition language used in the questions)

- **Using rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy**

  Eg 2593 + 6278 must be more than 2500 + 6200

- **Solving multi-step problems involving addition within contexts, deciding which operations and methods to use and why.**

3 245 people attended a concert on Wednesday and 4 723 on Thursday. The organisers wanted 10 000 people to attend in total. How many people need to attend on Friday to meet this target?

Provide calculations such as 23 456 + 46 019 and ask children to think of a practical situation relating to this

Children to apply and explain what they have learnt by completing this 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**
Objective:	
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?**

Prior AFL:

Yr5 Subtraction

Y5

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. £5.35 − £2.87 = £2.48

B. £3.80 − £1.39 = £2.41

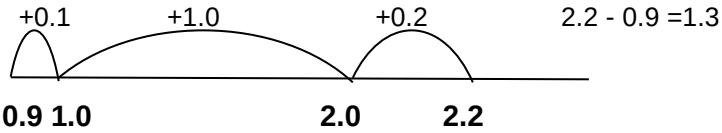
C. £4.00 − £1.35 = £2.65

D. £8.08 − £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

Show using jottings on a decimal number line:



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Mastery Map

Write a calculation based on what you've learnt:	**Draw a diagram/ use equipment to show your understanding of the problem**
Objective:	
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?**

Prior AFL:

Yr5 Multiplication

- **Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers**

- Grid Method TO x TO leading onto long multiplication

  Discuss with children how to move from the expanded to the formal written method of column multiplication (Show NCETM video)

X	20	3
40	800	120
7	140	21

= 920 = 161 1081

OR

800
120
140
+ 21
1081

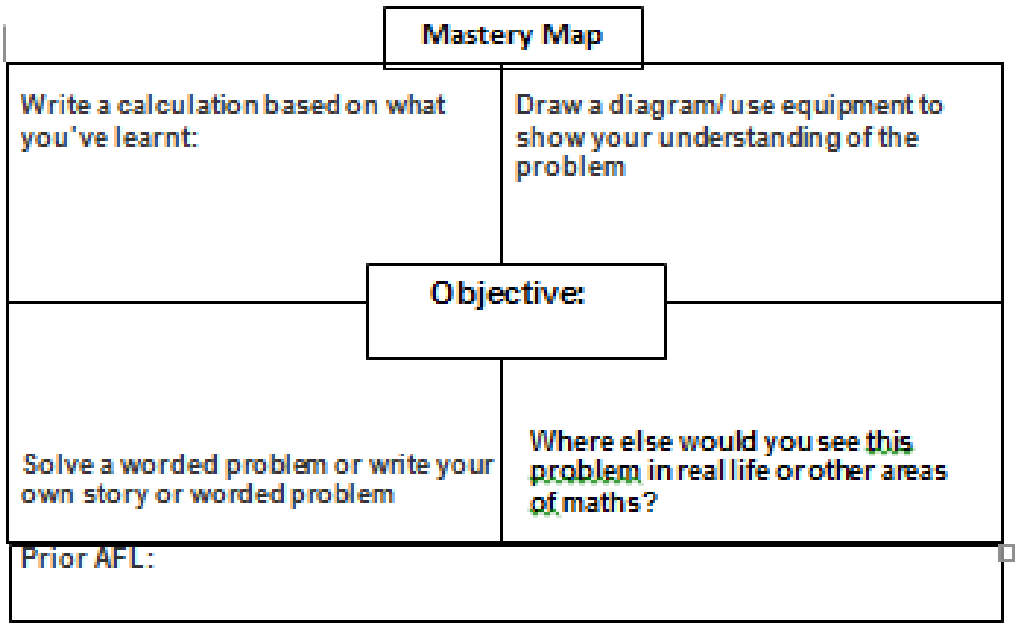
HTO
47
X 23
1 ^{2}41 +
^{1}9 40
1 0 81

- **HTO x O**

X	100	20	5
7	700	140	35

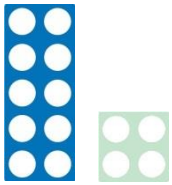
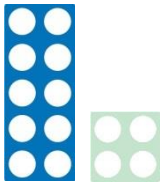
Ext: Using digits 2,3,4,5 What different products can you make?

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



Yr5 Division

- **Halve any number including decimals to one decimal place**
  Use Numicon to demonstrate (where a Numicon 1 piece represents 0.1)

E.g. Half of 2.4=  1 + 0.2 = 1.2  1 + 0.2 = 1.2

- **Divide numbers mentally drawing upon known facts e.g. 78 ÷ 6**

- **Consolidate short division of up to 4 digit numbers divided by 1 digit numbers**
  Make sense of remainders in division problems according to the context of the problem

  - Teach the vocabulary dividend ÷ divisor = quotient

- **Continue to practise chunking**

Grid of "chunks" above can help

1	2	5	10	20	50	100
13	26		130	260		1300

2. 4) 96
   -80 (20 x 4)
   16
   - 16 (4 x 4)
   0 24
   Answer = 24

3. **Extend to** 13) 793
   - 650 (50 x 13)
   143
   - 130 (10 x 13)
   13
   13 (1 x 13)
   0 61 Answer = 61

Extend to include remainders

- **Solve real-life problems involving division**
  Discuss which is an appropriate strategy to solve calculations based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)

e.g. One length of a swimming pool is 25 metres. How many lengths are there in a 150 metre race?

750 ml of water is shared equally between 5 glasses. How much water is there in each glass?

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