Year 5 Mathematics Workshop

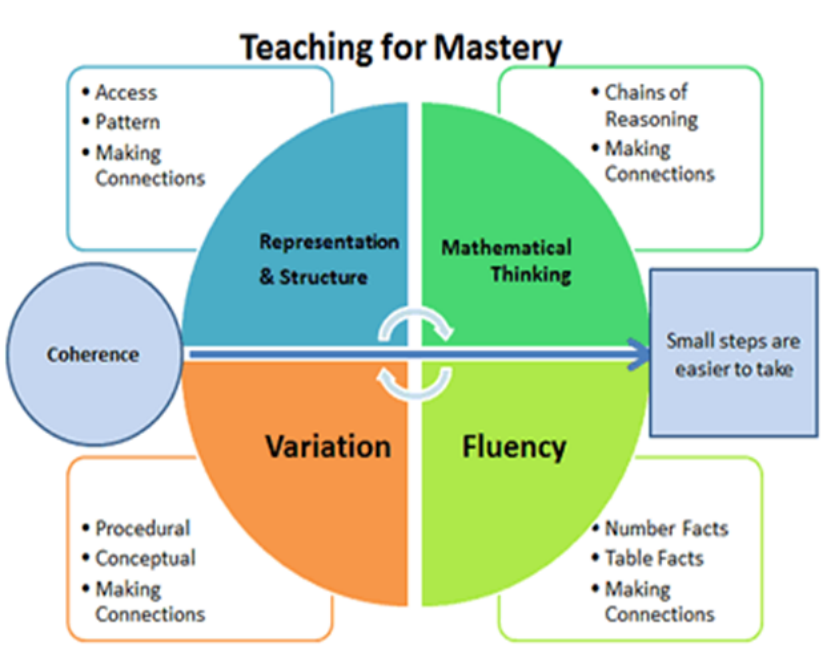
Monday 30th September

WHITCHURCH
COMBINED SCHOOL

My favourite quote from Parents!

"They don't do it like I did it at school!"

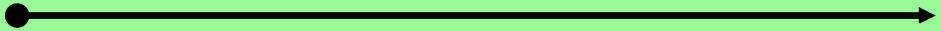
The Mastery Approach



At Whitchurch Combined School we follow a Mastery approach to teaching delivered primarily by White Rose Maths and follows 5 key principles. 5 Key Principles.docx

The Mastery Approach

An important part of all our lessons is a flashback 4 which allows children to revisit knowledge from the previous day, previous week, previous topic and previous year. This allows knowledge to be regularly revisited and embedded into the long term memory

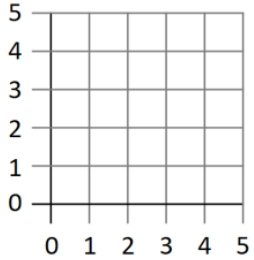


The Mastery Approach

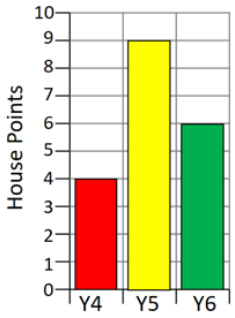
XX

1) What number is represented by the Roman numeral D?

2) Draw the grid and plot the coordinates (4, 1)



3) Write the classes in ascending order of house points.



4) 3,450 + 2,425 = ☐

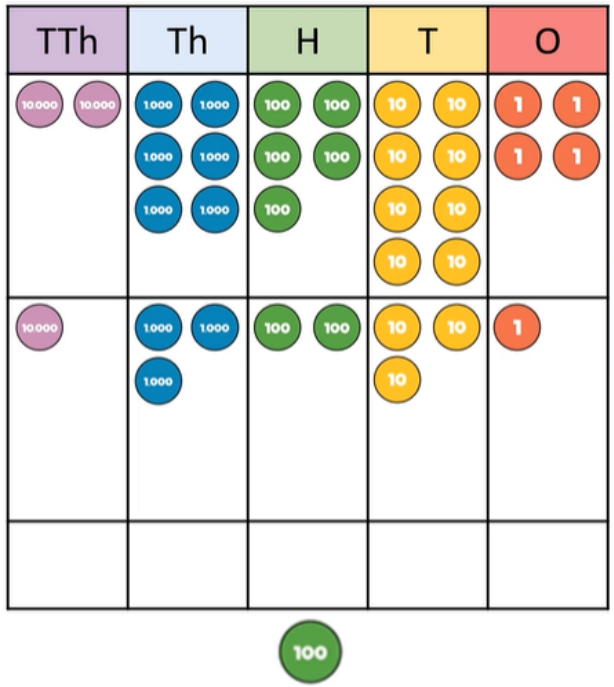
All Addition, Subtraction, Multiplication and division calculations are underpinned by a strong knowledge of place value. In Year 5 we need to have a secure knowledge of Place Value to one million - 999,999. Counters and place value charts are used to practice these skills! Make me the number: 506,801 using your place value counters and place value counters...

HTh	TTh	Th	H	T	O

Addition

Please refer to the addition part of your calculations policy for an example using the concrete, pictorial and abstract approach

I can add whole numbers with more than 4 digits

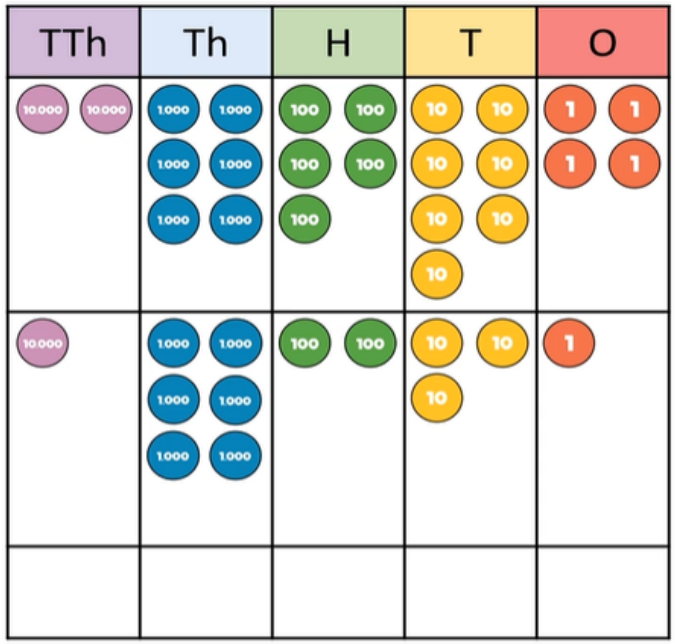


		2	6	5	8	4	
	+	1	3	2	3	1	

What do you notice here?

If there are 10 or more counters in a column we can make an exchange

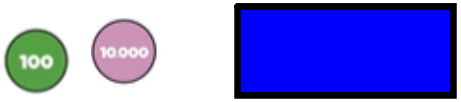
I can add whole numbers with more than 4 digits



		2	6	5	7	4	
	+	1	6	2	3	1	

Where is the exchange?

Is there more than 1?



I can add whole numbers with more than 4 digits

		3	4	7	2	6	
	+	2	5	6	1		
		6	0	3	3	6	
		1	1				

Not lined up place value columns correctly

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

Forgotten to add on the exchange

I do not think they are correct.

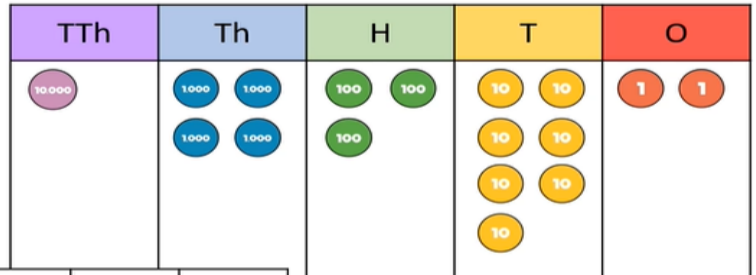
Non-standard examples!

Subtraction

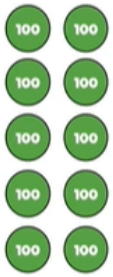
Please refer to the subtraction part of your calculations policy for an example using the concrete, pictorial and abstract approach

I can subtract larger numbers

$14{,}372 - 2{,}540 =$

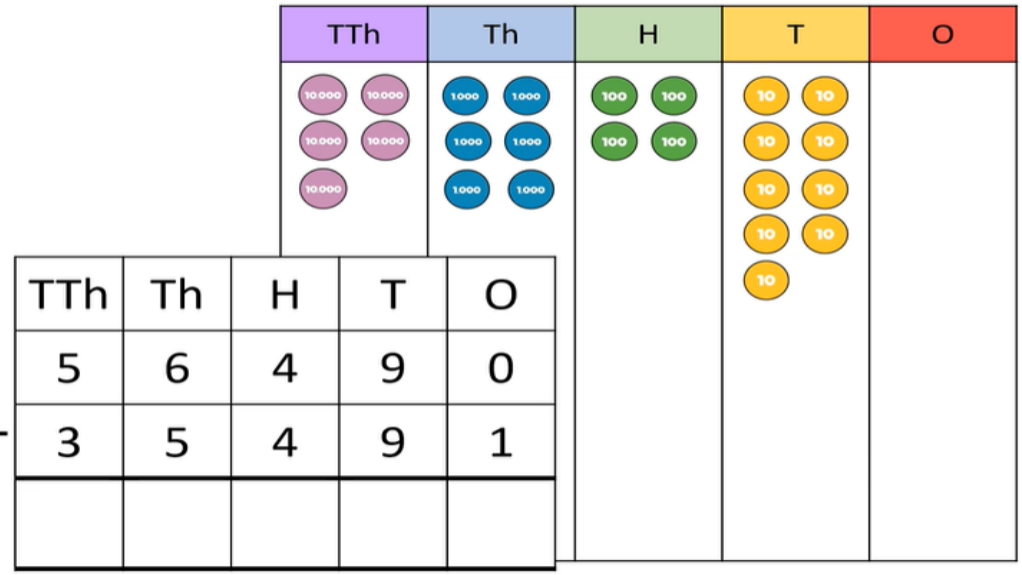


TTh	Th	H	T	O
1	4	3	7	2
−	2	5	4	0



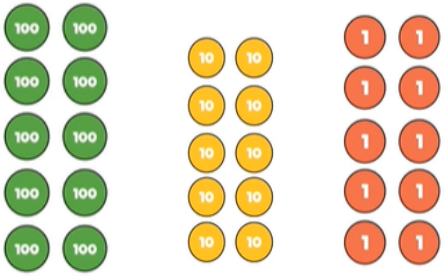
I can subtract larger numbers

56,490 − 35,491 =



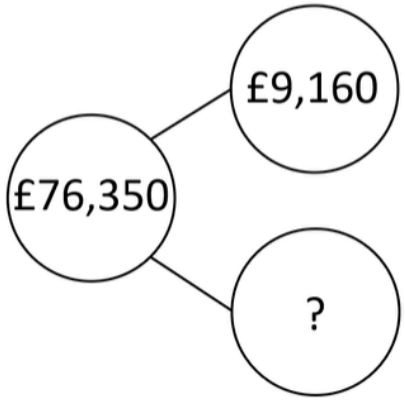
	TTh	Th	H	T	O
	5	6	4	9	0
−	3	5	4	9	1

How is this question different?



I can subtract larger numbers

Miss Rose has £76,350
£9,160 of her money is in High Street bank
and the rest is in National Bank.
How much is in National Bank?



TTh	Th	H	T	O
7	6	3	5	0
	9	1	6	0
				0

Multiplication

Please refer to the multiplication part of your calculations policy for an example using the concrete, pictorial and abstract approach

I can multiply a 4 digit number by a 1 digit number

There are 2,114 seats in a theatre. The theatre is fully booked for 3 shows. How many people attend overall?

$2{,}114 \times 3$

Thousands	Hundreds	Tens	Ones
1000 1000	100	10	1 1 1 1
1000 1000	100	10	1 1 1 1
1000 1000	100	10	1 1 1 1

	2	1	1	4	
×				3	

10

I can multiply a 4 digit number by a 1 digit number

$2{,}420 \times 4 =$

Thousands	Hundreds	Tens	Ones
	100 100	10 10 10 10	1 1
	100 100	10 10 10 10	1 1
	100 100	10 10 10 10	1 1
	100 100	10 10 10 10	1 1

	2	4	2	0	
×				4	

What mistake has Tiny made here?

I can multiply a 4 digit number by a 1 digit number

Thousands	Hundreds	Tens	Ones
1000 1000	100 100 100 100	10 10	
1000 1000	100 100 100 100	10 10	
1000 1000	100 100 100 100	10 10	
1000 1000	100 100 100 100	10 10	

	2	4	2	0	
×				4	

I can multiply a 2 digit number by a 2 digit number

What's the same and what's different about the representations?

23×31

×	20	3
30	600	90
1	20	3

$600 + 90 + 20 + 3 = 713$

	H	T	O	
		2	3	
×		3	1	
		2	3	
+	6	9	0	
	7	1	3	
	1			

I can multiply a 3 digit number by a 2 digit number

Complete the calculation to work out 123 × 23

		1	2	3	
×			2	3	
		3	6	9	
	2	4	6	0	

(123 × 3)

(123 × 20)

Why is there a '0' here?

I can multiply a 3 digit number by a 2 digit number

132 × 23

	Th	H	T	O	
		1	3	2	
×			2	3	
		3	9	6	(132 × 3)
+	2	6	4	0	(132 × 20)
	3	0	3	6	
	1	1			

23 × 31

	H	T	O	
		2	3	
×		3	1	
		2	3	(23 × 1)
+	6	9	0	(23 × 30)
	7	1	3	
	1			

What is the same?

What is different?

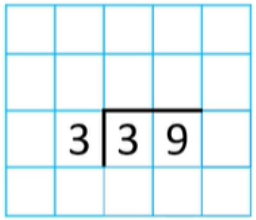
Division

Please refer to the division part of your calculations policy for an example using the concrete, pictorial and abstract approach

I can divide

Complete the sentences.

Tens	Ones
10 10 10	1 1 1 1 1 1 1 1 1

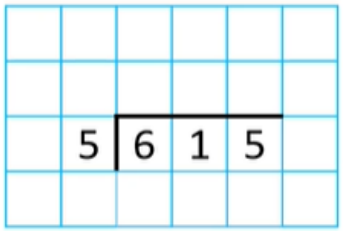


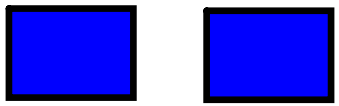
There is ____ group of three tens.
There are ____ groups of three ones.
39 ÷ 3 =

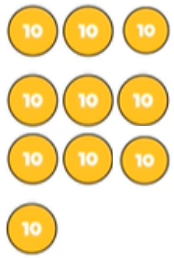
I can divide

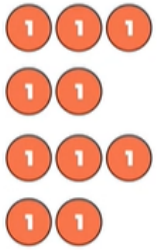
615 ÷ 5 =

H	T	O
100 100 100 100 100 100	10	1 1 1 1 1









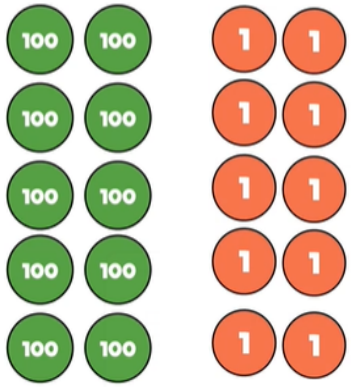
I can exchange 1 hundred for 10 tens.

I can divide with remainders

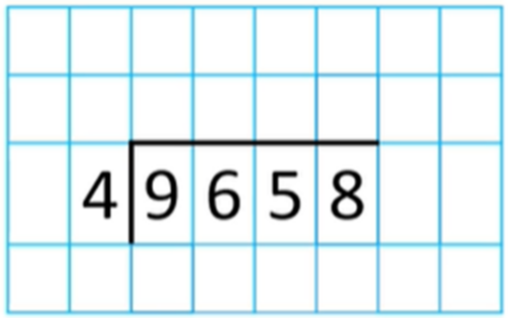
5,291 ÷ 4

Thousands	Hundreds	Tens	Ones
1000 1000 1000 1000 1000	100 100	10 10 10 10 10 10 10 10 10 10	1

4	5	2	9	1	



I can divide with remainders



How many groups of...4000 can I make from 9000
How many groups of...400 can I make from 1600
How many groups of... 40 can I make from 50
How many groups of... 4 can I make from 18
I have .... remainder

That's it! Thank you for listening. Please take your pack of resources. All other resources are on the Year 5 class page.

Please take a moment to fill in the Google Form feedback link via the QR code link

Attachments

5 Key Principles.docx