YEAR 3 MATHS METHODS FOR ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION

ADDITION – *expanded method*

(Some children will be doing the expanded method – this is an easier method so start with this if your children are finding the method tricky)

234 + 137 (only exchanging the units)

Partition the numbers into hundreds, tens and units, make sure you leave a space between each number as this allows for space to exchange the ten units for one ten. Add the numbers at the bottom to get the answer

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

237 + 187 (exchanging the tens and the hundreds)

2	0	0		3	0		7	
1	0	0		8	0		7	+
3	0	0	1	1	0	1	4	

Partition the numbers into hundreds, tens and units, make sure you leave a space between each number as this allows for space to exchange the ten units for one ten and the ten tens to a hundred. Add the numbers at the bottom to get the answer.

ADDITION - *Contracted method*

346 + 178 =

3	4	6
1	7	8
4	1	4
1	1	

SUBTRACTION – *expanded method*

2 – 3 you can't do so you have to exchange a ten for ten units. 12 – 3 = 9

30 – 60 you can't do so you have to exchange 100 for 10 tens. 130 – 60 = 70

200 – 100 = 100

Make sure the children cross out the numbers they have exchanged and write the new numbers otherwise they get the wrong answer!

342 – 163 = 179

2	0	0	1	3	0			
~~3~~	~~0~~	~~0~~		~~4~~	~~0~~	1	2	
1	0	0		6	0		3	+
1	0	0		7	0		9	

SUBTRACTION – *contracted method*

323 – 146 = 197

~~2~~3	~~1~~3	13
1	4	6
1	9	7

MULTIPLICATION – 2 DIGIT BY 1 DIGIT - *grid method*

34 X 3 =

	30	**4**	
3	90	12	= 102

If the children don't know their times tables well enough to be able to use their root facts they can use jottings. They would do this by drawing 3 lots of 10 and 3 lots of 4. They can then add these up.

DIVISION – 2/3 DIGIT BY 1 DIGIT – grid method

63 ÷ 3 = 21 (how many groups of 3 tens can you make? How many groups of 3 units can you make?)

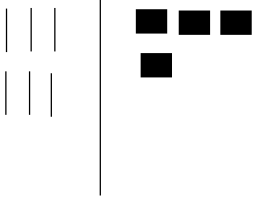
	60	3
3	20	1

DIVISION WITH REMAINDERS

64 ÷ 3 (how many groups of 3 tens can you make? How many groups of 3 units can you make and how many left over?)

63 ÷ 3 = 21r 1

	60	4
3	20	1



DIVISION WITH EXCHANGING

54 ÷ 4 = (how many groups of 4 tens can you make? If there is a ten left over you have to exchange it for ten units. How many groups of 4 units can you make? Are there any left over?)

54 ÷ 4 = 13 r 2

	50	4
4