


Melcombe Primary School Calculation Procedures

Reviewed By: Kulsoom Saghir

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Signed 

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Addition and Subtraction Procedures:

Column Addition	
?	Make a sensible estimate
	Line up the numbers when you write them down according to their place value, e.g. 100's, 10's and ones.
+	Start by adding up the smallest column first and record under the answer line.
*	If the answer goes over ten, carry this into the next column
+	Then add up the next column and record this underneath
→	Complete the number sentence.
✓	Check the answer with your estimate

Preferably ones, not units, although kids should be familiar with both terms

Decimal point should have its own column.

	TTh	Th	H	T	O	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
	4	5	5	4	7	.	0	3	6
	3	1	3	8	6	.	2	1	0
+		8	9	4	2	.	4	0	7
	8	5	8	7	5	.	6	5	3
	1	1	1	1				1	

Don't forget the baby!

Column Subtraction	
?	Make a sensible estimate.
✏	Write the two numbers down under each other, ensuring the bigger number is on top and that they are lined up according to their place value. (With decimals it helps to put in the decimal points first.)
→	Start by subtracting the smallest column.
*	If the top number is smaller than the bottom number then take from the column next door.
→	Subtract the two numbers and write the answer underneath. Continue doing this with the other columns.
→	Complete the number sentence.
✓	Check your answer with your estimate.

Don't say borrow because you don't give it back, or steal because stealing is not nice. Say exchange or take from the next column.

	4	5	.	9	6	3
-	3	4	.	3	6	8
	1	8	.	6	9	5

Multiplication Procedures:

Use the vertical method for multiplying by 1 or more digits, whole & decimal by decimal.

- Carry the tens above the next column
- bottom number X by top number
- cross out the carried number once added

Whole numbers:

Success Criteria

Can you...

1. Set out the calculation in the vertical method
2. Check the digits are in the correct place according to place value?
3. Multiply from the right
4. Remember to carry to the next column if needed
5. Place a zero for the second number
6. Remember to add the totals together

	3	1		
	4	5	2	
		x	7	
	3	1	6	4

decimal by decimal:
Success Criteria

- take out the decimal points
- set the calculation up in vertical method
- don't forget to carry above if needed
- don't forget to place the zero for the second number
- count how many digits after the decimal point in the original numbers
- place the decimal point in the answer so there are the same number of digits after the decimal point.

	2	1		
	6	4	3	
	x	4	5	
	3	2	1	5
	2	5	7	2
	2	8	9	3

Whole by decimal:
Success Criteria

- Remove the decimal point
- Set the calculation up in vertical method
- don't forget to carry above if needed
- don't forget to place the zero for the second number
- Count how many numbers after the decimal point in the original question
- Put the decimal point into the answer so there is the same number of digits after the decimal point

Division Procedures:

Use short division (bus stop method) if dividing by 1 - 12

Use long division if dividing by 12 or more

- Saying: 'what X the divisor, gets me close to the number without going over'

Year 1 & 2 will be teaching like this:



* Draw the same number of circles that you are dividing by $12 \div 3 =$



* Split the other number equally between the circles



* Count how many in 1 circle 4

			4	2	r	4	=	4	2	$\frac{4}{15}$
1	5	6	3	4						
		6	0							
			3	4						
			3	0						
				4						

- Yrs 5 and 6 need to teach remainders as fractions and decimals

Year 3 they start short division

	0	9	1	r	3
5	4	4	5	8	

	0	9	1	.	6		
5	4	4	5	8	.	3	0

		4	2	.	2	6
1	5	6	3	4	.	0
		6	0			
			3	4		
			3	0		
				4	0	
				3	0	
				1	0	0
					9	0
					1	0