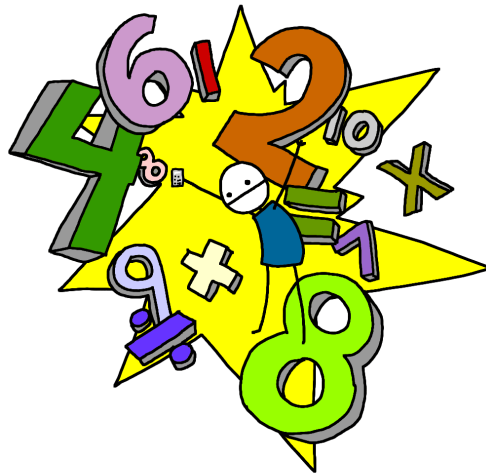




Otley All Saints CE Primary School

Mathematics

Calculation Policy



ADDITION

Year 2

- Add 2 2-digit numbers
- Column method without regrouping adding units first

	T	U	
	5	7	
+	2	2	
	<hr/>	<hr/>	
	7	9	

Year 3

- Column methods with regrouping
- 2-digit numbers leading to 3-digit numbers

		T	U	
		5	5	
	+	6	7	
	<hr/>	<hr/>	<hr/>	
	1	2	2	
		1		

	H	T	U	
	2	3	9	
+	1	4	6	
	<hr/>	<hr/>	<hr/>	
	3	8	5	
		1		

Year 4

- Adding 4-digit numbers using column method with regrouping

	Th	H	T	U	
	3	5	9	6	
+	1	8	7	4	
	<hr/>	<hr/>	<hr/>	<hr/>	
	5	4	7	0	
	1	1	1		

Year 5

- Adding more than 4-digit numbers using column method with regrouping

	Tth	Th	H	T	U	
	3	7	8	0	4	
+	4	5	2	3	7	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
	8	3	0	4	1	
	1	1		1		

Year 6

- as Year 5, moving onto decimals

	H	T	U	th	hth	
	3	6	5	• 8	4	
+	4	5	8	• 4	8	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
	8	2	4	• 3	2	
		1	1	1		

SUBTRACTION

Year 2

- Column method without regrouping subtracting units first

	T	U	
	3	9	
-	1	7	
	<u>2</u>	<u>2</u>	

Year 4

- Column method with regrouping up to 4-digit numbers

	Th	H	T	U	
	1		4		
	2	¹ 3	5	¹ 4	
-	1	9	2	5	
		<u>4</u>	<u>2</u>	<u>9</u>	

Year 3

- Column method with 2-digit and 3-digit numbers introducing regrouping (decomposition)

	T	U	
	6		
	7	¹ 2	
-	3	9	
	<u>3</u>	<u>3</u>	

Year 5

- Column method with regrouping up to 5-digit numbers

	Tth	Th	H	T	U	
	4			2		
	5	¹ 6	7	3	¹ 4	
-	2	9	5	0	7	
	<u>2</u>	<u>7</u>	<u>2</u>	<u>2</u>	<u>7</u>	

	H	T	U	
	1	¹ 3		
	2	4	¹ 1	
-	1	8	4	
		<u>5</u>	<u>7</u>	

Year 6

- As Year 5, moving onto decimals

	H	T	U	th	hth	
	3		6	9		
	4	¹ 6	7	¹ 0	¹ 1	
-	2	7	6	4	5	
	<u>1</u>	<u>9</u>	<u>0</u>	<u>5</u>	<u>6</u>	

MULTIPLICATION

Year 4

- Short multiplication of 2-digit leading to 3-digit numbers multiplied by a single digit number, multiplying units first

		T	U	
		2	4	
	x		3	
		7	2	
		1		

		H	T	U	
		4	5	2	
	x			4	
	1	8	0	8	
		2			

Year 5

- Short multiplication of 3-digit and 4-digit numbers multiplied by a single digit number.
- Long multiplication of 3-digit numbers multiplied by a 2-digit number

		Th	H	T	U	
		2	3	8	4	
	x				6	
	1	3	7	0	4	
		1	5	2		

			H	T	U	
			3	2	4	
	x		3	5		
	1	1	6	2	0	
	9	1	7	2	0	
	1	1	3	4	0	
		1				

Year 6

- Long multiplication of up to 4-digit numbers multiplied by a 2-digit number including decimal numbers

			Th	H	T	U	
			7	4	6	1	
		x			4	3	
		2	12	13	8	3	
	2	9	28	4	4	0	
	3	2	0	8	2	3	
		1	1	1			

Deepening understanding with decimals by removal and replacement of decimal points according to place value

			7	4	•	6	1
		x			4	•	3
		2	12	13	8	3	
	2	9	28	4	4	0	
	3	2	0	•	8	2	3
		1	1	1			

DIVISION

Year 5

- Short division of up to 4-digit numbers by a 1-digit number

		0	6	9	5	r1	
5		3	³ 4	⁴ 7	² 6		

Year 6

- Long division of up to 4-digit numbers by 2-digit numbers
- if the divisor is up to 12 then use a short-division method
- for divisors greater than 12 compile a ready reckoner first

<u>Ready Reckoner – 14 times table</u>
2 x 48
4 x 96
5 x 120
8 x 192
10 x 240
20 x 480

			0	1	6	0	r20
2	4		3	8	6	0	
		-	2	4			
			1	4	6		
		-	1	4	4		
					2	0	