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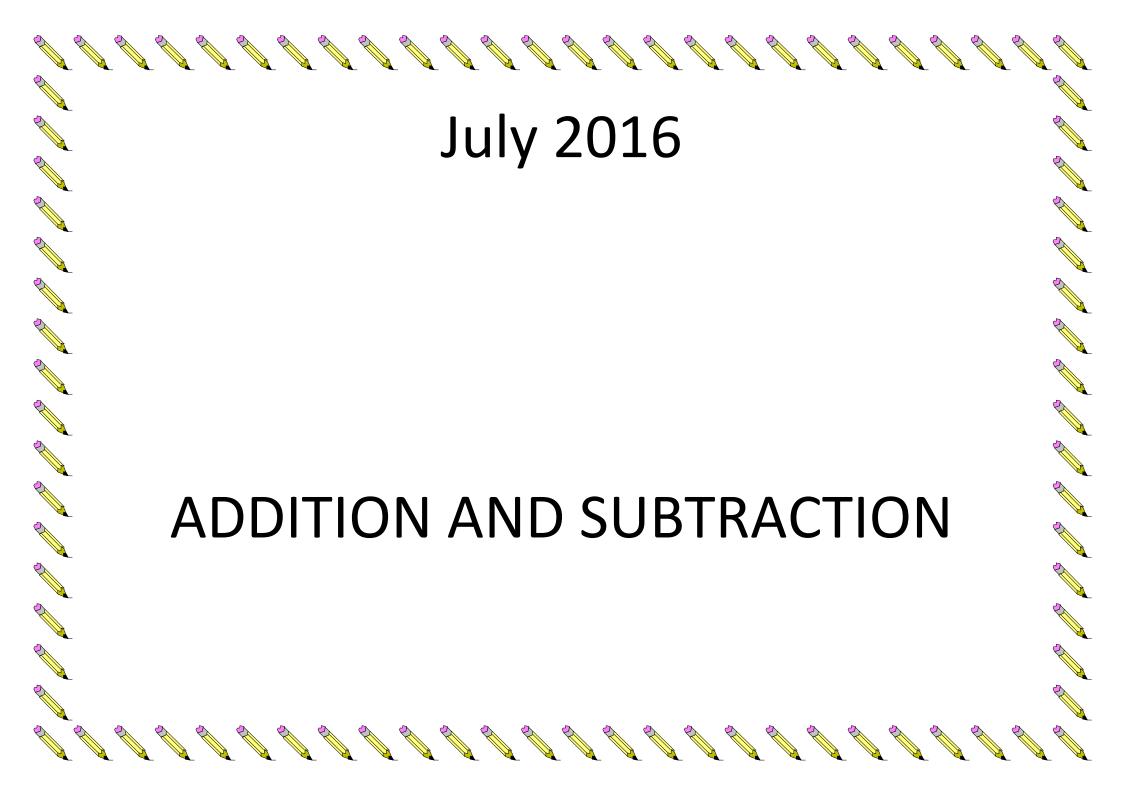
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# Mathematics – Written Calculation Policy



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EYFS and Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
add	add	add	add	add	add
addition	addition	addition	addition	addition	addition
sum	sum	increase	subtract	subtract	subtract
total	total	sum	subtraction	subtraction	subtraction
altogether	altogether	total	increase	increase	increase
one more, two more,	one more, two more,	altogether	decrease	decrease	decrease
ten more	ten more	more	sum	sum	sum
how many more to	how many more to	how many more to	total	total	total
make?	make?	make?	altogether	altogether	altogether
take	take	take	more	more	more
take away	take away	take away	how many more to	how many more to	how many more to
subtract	taken from	take from	make?	make?	make?
subtraction	subtract	taken from	take	less	less
one less, two less, ten	subtraction	subtract	take away	how many more/less	how many more/less
less	difference between	subtraction	take from	is?	is?
how many less	one less, two less, ten	decrease	taken from	take	take
isthan?	less	difference between	leaves	take away	take away
fewer than	how many less	less	difference between	take from	take from
makes	isthan?	how many less	sign	taken from	taken from
leaves	fewer than	isthan?	plus	leaves	leaves
is the same as	makes	fewer than	minus	difference between	difference between
equals	leaves	leaves	equals	sign	sign
sign	is the same as	sign	complement	plus	plus

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plus	equals	plus	inverse	minus	minus	7
minus	sign	minus	carry	equals	equals	4
ones; tens; hundreds		equals	exchange	complement		×
ones, tens, nunureus	plus	•	•		complement	
	minus	carry	ones; tens; hundreds;	inverse	inverse	ę
	ones; tens; hundreds	exchange	thousands; ten	carry	carry	
		ones; tens; hundreds;	thousands; hundred	exchange	exchange	2
		thousands; tenths	thousands; tenths;	ones; tens; hundreds;	ones; tens; hundreds;	×
			hundredths	thousands; ten	thousands; ten	
				thousands; hundred	thousands; hundred	ę
				thousands; millions;	thousands; millions;	
				tenths; hundredths	billions; infinity; tenths;	Ŕ
					hundredths	

### EYFS, YEAR 1 & 2: ADDITION AND SUBTRACTION

EYFS: Knows that a group of things changes in quantity when something is added or taken away.

EYFS: Play games related to addition and subtraction.

EYFS: Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same.

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EYFS: Finds the total number of items in two groups by counting all of them.

EYFS: Finds one more or one less from a group of up to five objects, then ten objects.

EYFS: In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.

Year 1: Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.

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Year 2: Add and subtract numbers up to 2-digits, using formal written methods of addition and subtraction. Year 1: Find an unknown numbers for +/- problems, eg. 12 + ? = 15

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Year 2: Recognise and use the inverse relationship between addition and subtraction and use this to check answers and solve missing number problems.

Year 2/3: Estimate the answer to a calculation and use inverse operations to check answers.

Year 1: Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems, such as 7 = ? - 9

Year 2: Solve problems with addition and subtraction, including money and measures.

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	Step 1: Calculate the total when 2 sets are combined, using practical, concrete objects to do so; <b>3 + 2 = 5</b>	* * *	* * * *
	Calculate how many are left in a set, when objects are taken away, using practical, concrete objects to do so. 5-1=4		
2	Be able to add and subtract within to range 0 - 5	Be able to add and subtract within the range 0-10	Be able to add and subtract within the range 0- 20
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<u>Step 2:</u> Use 'Numicon' to support addition and subtraction, within the ranges above; <b>0-5; 0-10;</b> <b>0-20</b>					
<u>Step 3:</u> Use a number line with marked intervals to add and subtract, by counting on and back in 1's.	1 2 3 4 5 6 7 8 9 10				
	1 + 6 = 7	12 – 5 = 7			
Be able to add and subtract within to range 0 - 5	Be able to add and subtract within the range 0-10	•			
		0-20			
<u>Step 4:</u> Use a blank number line, then draw own number line to complete steps above; Add and subtract in the range; <b>0-5; 0-10; 0-20</b>	< + + + + + + + + + + + + + + + + + + >				
<u>Step 5:</u> Use a number line to add and subtract in increasingly large jumps, so the method becomes	< + + + + + + + + + + + + + + + + + + +	<++++++++++++++++++++++++++++++++++++++			
more efficient. Add and subtract within the range; <b>0-5; 0-10; 0-20; 0-50, 0-100</b>	15 + 4 =	20 – 5 =			
<u>Step 6:</u> Use a number line to add and subtract in increasingly large jumps, crossing 10's barriers.	< + + + + + + + + + + + + + + + + + + +	< • • • • • • • • • • • • • • • • • • •			
Add and subtract within the range; 0-5; 0-10; 0-20; 0-50, 0-100	26 + 8 =	33 – 6 =			

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Step 7: Use a 100 square or number line to add and subtract in increasingly large jumps, moving in different directions to jump on and back in 10's and 1's.		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				
Add and subtract a 2-digit number and 1-digit number, without crossing 10's barrier; 15 + 4 = 19 19 - 3 = 16	number and when crossi	tract a 2-digit 1-digit number, ng a 10's barrier; 32 34 – 5 = 29	Add and subtract two 2-di numbers, without crossing barrier; 43 + 25 =68 95 - 31	g a 10's num the 1	and subtract any two 2-digit bers, including those which cross LO's barrier; 25 + 38 = 63 81 – 47 = 34	
<u>Step 8:</u> Use partitioning to add and subtract two 2-digit numbers.		43 + 25 = $40 + 20 + 3 + 5 =$ $60 + 8 = 68$ $95 - 31 =$ $90 - 30  and  5 - 1 =$		25 + 38 = 20 + 30 + 5 + 8 = 50 + 13 = 63 81 - 47 = 81 - 40 - 7 =		
-	nbers, that do not cross the 10's       that cross the 10's         'ier.       25 -         43 + 25 = 68       81 -		) and 4 = 64	100's barrier. = 396	41 - 7 = 34 Add and subtract two 3-digit numbers that cross the 10's and/or 100's and /or 1000's barrier. 137 + 284 = 421	
Find a missing number in a calculatio Find the value of a missing number ir sentence. The missing number may l represented by a shape, missing box	n a number be		5 + = 35 + 15 = 20 _ + = 14 0 = + 14 0 = 17 + + 40 +		40 = 15 12 = 35 = 18 75 = 12 56 = 40 322 = 125	

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Use the inverse to check an answer is correct.		
After completing a calculation, the inverse can be	44 + 12 = 56	65 – 13 = 52
used to check and answer.	so 56 – 12 = 44 and 56 – 44 = 12	so 52 + 13 = 65
	and 12 + 44 = 56	and 65 – 52 = 13
Estimate what an answer may be before		
calculating, to ensure accuracy.	79 + 2	2
Use estimation to make a sensible guess what an	79 is near to 80 and	22 is near to 20
answer will be before calculating. Round	80 + 20 = 100, so the final answ	er should be close to 100.
numbers up or down, then complete the		
calculation.		

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YEAR 3 & 4: ADDITION AND SUBTRACTION

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Year 3: Add and subtract numbers up to 3-digits, using formal written methods of columnar addition and subtraction.

Year 4: Add and subtract numbers up to 4-digits, using the formal written methods of columnar addition and subtraction where appropriate.

Year 3 & 4: Estimate the answer to a calculation and use inverse operations to check answers.

Year 3: Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Year 4: Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

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Step 1: Draw or use a blank number line to subtract increasingly large number those where a 10's or 100's barrie	s, including		; + 133 =	<++++	265 – 21	.=
Add and subtract two 2-digit numbers, where a 10's or 100's barrier is not crossed.		nct two 2-digit numbers, r 100's barrier is crossed.	Add and subtract two 3-di numbers, where a 10's or barrier is not crossed.	-		ract two 3-digit ere a 10's or 100's sed.
<u>Step 2:</u> Use partitioning to add and subtra numbers, then two 3-digit number	-		Partitioning 500 + 100 = 60 + 90 = 7 + 9 = 16 600 + 150 + 7	600 150		
Add and subtract two 2-digit numbers, that do not cross the 10's barrier. 43 + 25 = 68 95 - 31 = 64	Add and subtr that cross the	ract two 2-digit numbers 10's barrier. 25 + 38 = 63 81 – 47 = 34	Add and subtract two 3-digit that do not cross the 10's or 125 + 271 = 396 646 - 231 = 415	100's barrier.	numbers that 100's and /or 137	ract two 3-digit cross the 10's and/ 1000's barrier. ' + 284 = 421 - 285 = 328
Step 3:		Column 5	6 7 + 9 9		6 × 1: 5	2 6 6

		ADDIT	ION			
2-digits and 2-digits	3-digits ar	nd 2-digits	3-digits an	d 3-digits		4-digits and 4-digits Any 2 numbers, up to 4-digits More than 2 numbers
Add two 2-digit Add two 2-digit Add two 2-digit numbers where here is no carrying; Add two 2-digit numbers where there is carrying;	Add a 3-digit numbers and a 2-digit number, where there is no	Add a 3-digit number and a 2-digit number, where carrying is	Add two 3-digit numbers where there is no carrying;	numbe there is	o 3-digit rs where s carrying	Add two 4-digit numbers that involve an increasing amount of carrying.
25 36 + 31 + 48 56 84	carrying; 125 + 42	involved; 245 + 86	333 + 245 578	in; 1 column, then both columns	,	Add numbers that have a different amount of digits.
	167	331				Add more than 2 numbers, using this method.
	·	SUBTRAC	CTION	•		
2-digits and 2-digits 3-digits		nd 2-digits	3-digits and 3-digits			4-digits and 4-digits Any 2 numbers, up to 4-digits More than 2 numbers
ubtract two 2-digit Subtract two 2- umbers where digit numbers here is no where there is	Subtract a 2-digit numbe number, when there is; - no exchanging	-	Subtract two 3-digit numbers when there is; - no exchanging - 1 exchange - 2 exchanges		hen there	Subtract two 4-digit numbers that involve a increasing amount of exchanging.
xchanging; exchanging; 65 91 -52 -64	<ul> <li>1 exchange</li> <li>2 exchanges</li> </ul>					Subtract numbers that have a different amount of digits.
13 27		ADDITION AND S				
Add and subtract two 2-digit numbers, v	ith 1 decimal Add ar	nd subtract two 2-digit nu	imbers with up to 2 dec	imal	Add and su	btract numbers with a mixed number of

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## YEAR 5 & 6: ADDITION AND SUBTRACTION

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Year 5: Add and subtract whole numbers with more than 4-digits, including using formal written methods (columnar addition and subtraction), including decimals.

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Year 6: Add and subtract increasingly large numbers, using formal written methods (columnar addition and subtraction), including decimals.

ADDITION AND SUBTRACTION

xchanging (up to 4-digits)	involve; - 1 number being carried or exchanged (up to 4- digits)	involve; - more than 1 number being carried or exchanged (up to 4-digits)	mixed number places, eg; 5462 + 23 7763 - 242	using formal column method.
	large numbers, including decin	1		1
tep 1: Add and subtract umbers with 1dp that nvolve; - no carrying or exchanging	Step 2: Add and subtract numbers with 1dp that involve; - 1 number being carried or exchanged	Step 3: Add and subtract numbers with up to 2dp, using column method.	Step 3: Add and subtract numbers with up to 3dp, using column method.	Step 4: Add and subtract numbers with a mixed number of decimal places, using column method.

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## MULTIPLICATION AND DIVISION

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#### Mathematical Vocabulary: Multiplication and Division

EYFS and Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
lots of	lots of	lots of	lots of	lots of	lots of
groups of	groups of	groups of	groups of	groups of	groups
once, twice, three	array	times	times	times	of
times	times	multiply	multiply	multiply	times
twosfivestens	multiply	multiplication	multiplication	multiplication	multiply
pair	multiplication	multiplied by	multiplied by	multiplied by	multiplication
double	multiplied by	multiple of	multiple of	multiple of	multiplied by

share equally each left left over half halve	once, twice, three times four times, five times, ten times as long time-table pair row column double halve share	once, twice, three times four times, five times, ten times as long times-table product pair double halve row column	once, twice, three times four times, five times, ten times times as long times-table product pair double halve row column	common multiple once, twice, three times four times, five times, ten times as long times-table pair double halve row column	common multi once, twice, the times times as long a times-table pair double halve row column share
	share equally one each two each three each group group in pairs threestens equal groups of divide division divided by left left over remainder inverse	share share equally group one each two each three each group equal groups of group in pairs, threes, tens divide division divided into left left over remainder inverse	share share equally group one, two, three each group equal groups of group in pairs, threes, tens divide division divided into divisible by left left over remainder inverse	share share equally group equal groups of divide division divided by divided into divisible by left left over remainder product quotient inverse brackets	share equally group equal groups divide division divided by divided into divisible by left left over remainder product quotient divisor inverse brackets

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## **EYFS, YEAR 1 & 2: MULTIPLICATION AND DIVISION**

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Year 1: Calculate multiplication statements 2 x, 5 x and 10 x tables by using arrays and grouping.

Calculate division statements for 2 x, 5 x and 10 x tables, using sharing.

Year 1: Begin to understand x as repeated + and ÷ as repeated subtraction.

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Year 1: Use practical grouping and sharing to multiply and divide.

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Year 2: Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.

Year 2: Understand x as repeated addition and ÷ as repeated subtraction.

Year 2: Use jottings to support sharing and grouping to work out multiplication and division problems.

Year 2: Use a number line to count on to multiply and count back to divide.

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<u>Step 1:</u> Use practical equipment to create arrays (x) and share amounts (÷) by 2, 5 and 10.	Arrays: 3 x 6 = 18	Sharing: 12 ÷ 4 = 3		
<u>Step 2:</u> Record this pictorially and record the number sentence.	$4 \times 6 = 24$ $6 \times 4 = 24$			
<u>Step 3:</u> Understand x as repeated addition and ÷ as repeated subtraction.	$3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 \text{ is the same as } 3 + 3 + 3 + 3$ or $3 \times 4 = 12$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
<u>Step 4:</u> Use, then draw own number line to multiply and divide. <b>When multiplying</b> , the jumps begin at 0 and are written from left to right. <b>When dividing</b> the jumps are recorded from right to left, moving back towards 0.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$4.5 \div 9 = 5$ How many late of 9 model 4-57 $45 \div 9 = 5$		

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Doubling and Halving (		Use the 'diamond method' to double 47 + 47 47 40 7 80 + 14 = 94	Use the 'diamond method' to halve Half of 76 76 35 3 35 + 3 = 38
Use partitioning to double Double 37 = 30 + 30 + 7 + 7 = 60 + 14 = 74	Use partitioning to halve Half of 94 = 90 ÷ 2 = 45 4 ÷ 2 = 2 45 + 2 = 47	N 36 ( $_{194}$ 44.46) Doubling and Halving         Doubling (x2)         Example:         Double : 360         600 + 120 = 720         Half of:         Half of:         100 + 20 = 420         Half of:         100 + 20 = 420         Display         Half of:         100 + 20 = 420         Display         Partitioning with larger numbers	Double and halve increasingly large numbers (up to 3-digits). Include digits that are more tricky to double and half, or when recombined involve crossing a 10's or 100 barrier, such as; double 377 or find half of 595

## YEAR 3 & 4: MULTIPLICATION AND DIVISION

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Year 3: Write and calculate mathematical statements for multiplication and division using multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods.

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Year 3: Divide numbers up to 2-digits by 1-digit, using a number line to count on to multiply and count back to divide.

Year 3: Use grid-method to multiply a 2-digit number by a 1-digit number.

Year 3: Divide numbers with remainders.

Year 4: Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.

Year 4: Divide numbers up to 3-digits by 1-digit, using a number line to count on to multiply and count back to divide.

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Year 4: Use grid method to multiply a 4-digit number by a 1-digit number and a 3-digit number by a 2-digit number.

Year 4: Use chunking to divide 3 and 4 digit numbers by a 1 digit number and a 3-digit number by a 2-digit number.

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## Year 4: Divide numbers with remainders.

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					MULTIPL	CATION						
Key Sl	kill: Be ab	le to estimate t	he final answer, by r	nultiplying the	e 2 most signif	ficant digits r	nentally, eg.	87 x 5 is ap	prox. 90 x	5 = 450		
Key Sl	kill: Be ab	le to check the	final answer, by usin	g the inverse	operation.							
Step 1	<u>1:</u> Use par	titioning to mu	ltiply a 2-digit	Use partiti	oning to mult	iply a 3-digit	number by	Use part	itioning to	multiply a	4-digit nu	mber by
numb	oer by a 1-	digit number.		a 1-digit n	umber.			a 1-digit	number.			
		87 x 5			150	5 x 6				1645 x 8	_	
		80 x 5 = 40	0		100 x	6 = 600				00 x 8 = 8,00 00 x 8 = 4,800		
		5 x 5 = 25	i		50 x 6	5 =300				40 x 8 = 4,800	U	
		400 + 25 = 4	25			5 = 36				5 x 8 = 40		
					600 + 300	+ 36 = 936			8,000 + 4,8	300 + 320 + 4	0 = 13,160	
		d method to mu	Itiply a 2-digit	•	ethod to mul	tiply a 3-digi	t number by	0	method to	multiply a	4-digit nu	imber b
numb	per by a 2-	digit number.		a 2-digit n	umber.			a 2-digit	number.			
		35 x 26			123	x 54				2,467 x 54		
	х	30	5	x	100	20	3	х	2,000	400	60	7
	20	600	100	50	5,000	1,000	150	30	60,000	12,000	1,800	210
	6	180	30	4	400	80	12	8	16,000	3,200	480	56
	60	0 + 100 + 180 +	30 = 910	5,000 +	1,000 + 400 +	· 150 + 80 + 1	12 = 6,642	60,000 -	+ 12,000 + 16,0	00 + 3,200 + 1, 133,218	800 + 480 + 2	10 + 56 =
					DIVIS	ION						
Step 1	1: Use a n	umber line to d	ivide a 2-digit	Use a num	ber line to div	vide a 3-digit	number by	Use a nu	mber line t	o divide a	2, then 3-	digit
	er by a 1-	digit number (r	not for simple	a 1-digit n	umber.			number	by a 1-digit	: number, v	with a rem	nainder.
numb	,					7÷9				5 ÷ 6 = 10 r		

0 4 8 12 16 20 24 28 32 36 40 44 48 52	0 9 18 27 36 45 54 63 72 81 90 99 108 117	0 5 11 17 23 29 35 41 47 53 59 65 remainder 5
Step 2: Use a number line to divide a 2-digit	Use a number line to divide a 3-digit number by	Numbers should become increasingly larger and
number by a 1-digit number, using larger steps of	a 1-digit number, using larger steps of	jumps more efficient, eg. x 20, x 30, x 50, etc.
nultiples.	multiples.	
72 ÷ 4 = 10, 5, 2, then 3 jumps in x 4's	180 ÷ 9 = 10 x 9, then 10 x 9 = 20	
	10 x 9 10 x 9	
3 x 4 2 x 4 5 x 4 10 x 4	0 90 180	
0 12 20 40 72		
Step 3: Use chunking to divide a 3-digit number by	Use chunking to divide a 4-digit number by a 1-	Use chunking to divide a 3-digit, then 4-digit
a 1-digit number.	digit number.	number by a 1-digit number, when there is a
459 ÷ 3	4.2522	remainder.
450	1,368 ÷ 3	126 . 5
459	1.000	126 ÷ 5
-300 ( <b>100 x</b> 3)	1,368	125
159	-300 ( <u>100 x</u> 3)	126
-150 ( <b>50</b> x 3)	1,068	-50 ( <b>10</b> x 5)
9	-300 ( <b>100</b> x 3)	76
-9 ( <u>3 x 3</u> )	768	-50 ( <b>10</b> x 5)
0	-300 ( <u>100 x</u> 3)	26
	468	-25 ( <b>5</b> <u>x 5</u> )
100 and 50 and 3 chunks of 3 = 153, so 458 ÷ 3 =	-300 ( <b>100</b> x 3)	1
153	168	
	-150 ( <b>50</b> x 3)	10, then 10, then 5 chunks of 5, with 1 left ove
	18	(remainder), so 126 ÷ 5 = 25 r 1
	-18 ( <b>6</b> x 3)	
	0	
	400, then 50, then 6 chunks of 3 = 456, so 1,368 ÷ 3 = 456	

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## YEAR 5 & 6: MULTIPLICATION AND DIVISION

Year 5: Multiply numbers up to 4-digits by a 1 or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.

Year 5: Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.

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Year 5: Divide numbers with remainders.

Year 5: Round answers as appropriate.

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Year 5: Use written division methods in cases where the answer has up to 1dp.

Year 6: Divide numbers up to 4-digits by a 2-digit whole number using the formal written method of short division;

4 4 4 4 4 4 4 4 4 4 4

Year 6: Where appropriate for the context, divide numbers up to 4-digits by a 2-digit whole number, using the formal written method of short division, and express remainders as a whole number fraction, decimal or by rounding, as appropriate for the context.

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Year 6: Use written division methods in cases where the answer has up to 2dp.

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Step 1: Use long multiplication to multiply:	4-digits x 1-digit	Key Skill: Be able to estimate the final answer, by
3-digits x 1-digit		multiplying the 2 most significant digits mentally
345	2,784	eg. 87 x 5 is approx. 90 x 5 = 450
X 7	X_3	Key Skill: Use inverse operation to check answer
2,41`5	8,352	
Step 2: Use long multiplication to multiply:	3-digits x 2-digits	4-digits x 2-digits
2-digits x 2-digits		
	146	2,167
65	x 38	x 8 <u>1</u>
x 91	+ 1,168	+ 2,167
+ 65	4,380	173,360
5,850	5,548	175,527
5,915		
Step 3: Use long multiplication to multiply 3 x 3-	Use long multiplication to multiply a 2-digit-	Use long multiplication to multiply a decimal by
digits, 4 x 3-digits and 5 x 3-digtis.	number by a decimal;	decimal;

	x 2.3	x 2.7	
	+ 16.8	+ 4.48 12.80	
	112. 0		
	128.8	17.28	
	DIVISION		
Step 1: Use short division to divide a 2-digit	Use short division to divide a 3-digit number,	Use short division to divide a 3-digit number,	
number by a 1-digit number (not for simple	then 4-digit by a 1-digit number (no remainders).	then a 4-digit number by a 1-digit number, when	
division facts, as these <b>should be known facts</b> ).		there is a remainder.	
78 ÷ 6 = 13	129 ÷ 3 = 43		
	4 3	964 ÷ 7 = 137 r 5	
13	3 1 2 9	137r5	
6 78			
		7 9 6 4	
Step 2: Express a remainder as a fraction or	Step 3: Use short division to divide a 3 or 4-digit	Step 4: Use short division to divide a decimal by a	
decimal.	number by a 2-digit number.	whole number.	
964 ÷ 7 = 137 r 5	810 ÷ 45= 18	87.6 ÷ 6	
137 5/7	18	14.6	
137.71	45 810	6 87.6	
Key Skill: Be able to estimate the final answer, by	I multiplying the 2 most significant digits mentally, eg.	87 x 5 is approx. 90 x 5 = 450	
Key Skill: Use inverse operation to check answer.			

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Mathematics Appendix 1: Examples of formal written methods for addition, subtraction, multiplication and division.

For further examples of formal written methods see Mathematics programmes of study: key stages 1 and 2 National curriculum in England September 2013

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This appendix sets out some examples of formal written methods for all four operations to illustrate the range of methods that could be taught. It is not intended to be an exhaustive list, nor is it intended to show progression in formal written methods. For example, the exact position of intermediate calculations (superscript and subscript digits) will vary depending on the method and format used.

For multiplication, some pupils may include an addition symbol when adding partial products. For division, some pupils may include a subtraction symbol when subtracting multiples of the divisor.