Year Three Addition









Subtraction



Children should explain understanding of patterns to support counting back mentally. What happens when I subtract tens? Hundreds? Ones? What about when crossing hundreds and ten	s boundaries?	the hundrids 1 - 2,492
Subtracting Three Digit Numbers using Part	itioning with no regrouping	
Use of concrete place value counters and	Support pictorially through drawings and pictures	Using the partitioning method to subtract at first before moving
dienes to support subtraction	in books	on to columnar
	235 - 123 =	$235 - 123 =$ Alex uses place value counters to calculate $434 - 72$ $\overrightarrow{H} \overrightarrow{T} \overrightarrow{O}$ $\overrightarrow{A} \overrightarrow{13} 4$ $- 7 2$ Use Alex's method to calculate: $248 - 67 247 - 67 354 - 92$

H T O O III		$\begin{array}{c} H & T & 0 \\ 2 & 3 & 5 \\ 2 & 3 & 5 \\ 2 & 0 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Compact Columnar Subtraction with no regi	Ouping	
Column method with dienes or place value	Children drawing pictures of dienes in the column	Formal column method involving no regrouping
counters 487 - 153 = 487 - 153 - 153 = 487 - 153 + 153 - 153 + 153 - 153 + 1537 - 153 + 1537 - 1537 + 1537 - 1537 + 1537 - 1537 + 1537	method 487 - 153 =	487 - 153 =
H T 000	487-153 = 334	334



Multiplication

Year Three	Pupils should be able to:		
	 recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems 		
Count in Multiples			
Use of practical ap	paratus to support counting in multiples of 3, 4 and 8	Use of pictorials to support counting on in multiples	
		24 twenty 8 groups of 3 is 24	
Mentally counting on in multiples. Children should use pattern spotting to support their understanding of multiples. 0, 5, 10, 15, 'Multiples of 4 end in 0,2,4,6,8. They are even numbers.' '53 cannot be a multiple of 8 because it's not an even number'			

Children can use concrete objects to support understanding of an empty	Children can use abstract method of number line with same steps as used in year 2.
number line. $4 \times 4 = 16$	4 X 4 = 1 6 4 4 4 4 0 4 8 12 16
Bar Model	1
Children can use concrete objects to support understanding of bar model	Children can draw own bar model to support solving multiplication problems.
4 4 4 4 4 × 4 = 16	$4 \times 4 = 16$ 4 + 4 + 4
Grid Method	
Grid method-dienes The two digit number is partitioned horizontally with the tens digit coming first. The number is represented by the dienes. $18 \times 3=$	Grid method 18 x 3 = • Partition the number into tens and ones • Multiply the pairs of numbers • Record the answer in the grid • Recombine to find the answers



Division

Year Three	Pupils should be able to:		
	 Recall and use division facts for the 3, 4 and 8 multiplication tables Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods 		
Repeated Subtract	tion		
Children use prev	Children use previous methods learned in year 2, but focus on aspect of repeated subtraction to prepare for subtracting when chunking.		
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1 5 \div 3 = 5 \\ 0 & 3 & 6 & 9 & 12 & 15 \\ \hline -3 & -3 & -3 & -3 & -3 \\ \hline \end{array}$	
Partitioning using the Part Whole Model			
Children can use method conceptua	place value counters as well as drawings to support this ally.	Children should be encouraged to write down the related time tables facts to support them with the formal method of the part whole model.	

