Addition and Subtraction		
Stage 1	Vocabulary	Example
 Count groups of objects. Know that adding is counting on. Know that subtraction is counting back. Count forwards and backwards to 20. Using fingers and objects to support learning. Understand how to make 10. 	add, more, and make, sum, total altogether score double one more, two more, ten more how many more to make? how many more is than? take (away), leave how many are left/left over? how many have gone? one less, two less ten less how many fewer is than? difference between is the same as	Addition. Combine two groups of objects. 1 + 2 = 3 $2 + 1 = 3$ $4 = 3$ $4 = 10$

Addition and Subtraction		
Stage 2.	Vocabulary	Example
As for stage 1 plus:	+, add, more, plus	Addition
 Read write and 	make, sum, total	Bead strings
interpret	altogether	8 + 5 = 13 Hundred Square.
mathematical	score	
symbols including	double, near double	
+, subtraction - ,and	one more, two more ten	Pre-drawn number lines
equals = signs.	more	31 32 33 34 35 36 37 38 39 40
 Know addition and 	now many more to	
subtraction facts for	how many more is	
all numbers to 20.	than ?	
Add and subtract one digit and 2 digit	how much more is ?	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
numbers to 20	subtract. take (away).	
including zero	minus	Subtraction
 Solve one step 	leave	Use a number line with all divisions marked and count back.
problems that	how many are left/left	7-4=
involve addition and	over?	
subtraction using	how many have gone?	
concrete objects	one less, two less, ten	7-4=3
and pictorial	less	0 1 2 3 4 5 6 7 <u>\-1</u> λ -1 λ -1 λ -1
representations and	how many fewer is	0000
missing number	than?	
problems.	how much less is?	
 Understand when it 	difference between	Begin to find a small difference.
is appropriate to	nair, naive	
find the difference.	=, equals, sign, is the	
	Sallie as	
		8 - 5 = 3
		The difference
		between 8 and 5 is 3

Addition and Subtraction		
Stage 3	Vocabulary	Example
As for Stage 1 and stage	+, add, addition, more,	Addition.
<u>2 plus:</u>	plus	Introduce empty number lines.
 Solve simple one- 	make, sum, total	Pupils begin by counting in steps of one.
step problems with	altogether	8+5=13
addition and	score	
subtraction; using	double, near double	
concrete and	one more, two more ten	+1 $+1$ $+1$ $+1$ $+1$
pictorial	more one hundred more	
representations,	how many more to	
including those	make?	
involving numbers	how many more is	When adding two two digit numbers count on in tens and ones
,quantities and	than?	34 + 23 = 57
measures applying	now much more is?	+10 +10
their increasing	-, Subtract, Subtraction,	+3
Knowledge of	lake (away), minus	34 44 54 57
mental and whiten	leave, now many are	
	one less two less ten	Then help children to become more efficient by adding the units on in one jump
Recall and use	less one hundred less	(using the known fact $4 + 3 = 7$)
audition and	how many fewer is	34 + 23 = 57
20 fluontly and	than ?	+10 +10
dorivo and uso	how much less is ?	
rolated facts up to	difference between	34 44 54 55 56 57
	half halve	
• Add and subtract	= equals, sign, is the	
	same as	Followed by adding the tens in one jump and the units in one jump
	tens boundary	34 + 23 = 57
iottings and	·····	+20
mentally including a		+3
two-digit number		
and ones, a two		34 54 57
digit number and		
tens, two two digit		

numbers, adding three one-digit numbers.

- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Recognise and use the **inverse** relationship between addition and subtraction and use this to check calculations and missing number problems.
- Understand when it is appropriate to find the difference.

Begin to partition and recombine, using objects to support. 48 + 36 =Partition each number into tens and ones



Add the ones together







Addition and Subtraction		
Stage 4	Vocabulary	Example
Know pairs with each total	+, add, addition, more,	Addition
to 20	plus	Bridging through ten can help the children become more efficient
Know pairs of multiples of	make, sum, total	37 + 15 = 52
10 with a total of 100	altogether	
Add any two 2-digit	score	+10
numbers by counting on in	double, near double	+3 +2
10s and 1s or by using	one more, two more ten	37 47 50 52
partitioning	more one hundred more	
Add multiples and near	how many more to	Use a blank number line to solve three digit add two digit problems.
multiples of 10 and 100	make?	
Perform place value	how many more is	
additions without a	than?	
struggle. (E.g. 300 + 8 +	how much more is?	134+45=
50 = 358)	-, subtract, subtraction,	
Use place value and	take (away), minus	+40 +5
number facts to add a 1-	leave, how many are	134 174 179
digit or 2-digit number to a	left/left over?	
3-digit number. (E.g. 104 +	one less, two less ten	
56 is 160 since	less one hundred less	Subtraction
104+50=154 and 6+4=10	how many fewer is	
and 676 + 8 is 684 since	than?	Find the difference by bridging through multiples of ten.
8=4+4 and 76+4+4=84)	how much less is?	74-27=47
Add pairs of 'friendly' 3-	difference between	
digit numbers, e.g. 320 +	half, halve	
450	=, equals, sign, is the	
Begin to add amounts of	same as	+40
money using	tens boundary, hundreds	+3
partitioning.	boundary	
		0 27 30 70 74

Multiplication and Division					
Stage 1	Vocabulary	Example			
 Multiplication is taught as repeated addition. Division is taught by sharing. 	group share How many	Multiplication.			
		2 + 2 + 2 + 2 + 2 = 10 socks Recall doubles and halves to 10. Division: Understand division as sharing equally. 4 sweets shared between 2 people. i i i i i i i i i i			

As for stage 1 and: • Begin to solve simple one step multiplication and division problem, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. Begin to solve support of the teacher. Begin to groups of , times, multiply, multiple of once, twice, three times tens times tens times tens equal groups of , divide, divided by, divided into left, left over Begin to understand division as grouping. 10:2-25 10 'into groups of' 2=5 I 'into groups of' 2=5	Stage 2	Vocabulary	Example		
 Begin to solve simple one step multiplication and division problem, calculating the answer using concrete objects, pictorial representations and array double, halve share, share equally one each, two each, two each, two each, two each group in pairs, threes tens equal groups of , divided by, divided into left, left over We way way way way way way way way way way	As for stage 1 and:	lots of, groups of	Multiplication.		
	As for stage 1 and: • Begin to solve simple one step multiplication and division problem, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	lots of, groups of ', times, multiply, multiplied by multiple of once, twice, three times ten times times as (big, long, wide and so on) repeated addition array double, halve share, share equally one each, two each, three each group in pairs, threes tens equal groups of ,, divide, divided by, divided into left, left over	Multiplication. $ \begin{array}{ccccccccccccccccccccccccccccccccccc$		



Stage 4	Vocabulary	Example		
Stage 4VocabularyAs for previous stages and:Iots of, groups of ', times, multiply, multiplication and division facts for the 3,4 and 8 times tables.Iots of, groups of ', times, multiply, multiplication, multiplication, multiplication, multiplication, multiplication, multiple of, product once, twice, three times ten times• Write and calculate mathematical statements for multiplication tables that they know, including for two- digit numbers using mental and progressing toIots of, groups of ', times, multiply, multiplication, multiplication, multiplication, multiplication array row, column double, halve share, share equally one each, two each, three each	Example <u>Multiplication</u> <u>Calculation grid</u> 3x11=33 x 3		1	
 Solve problems including missing number problems involving multiplication and division including integer scaling problems and correspondence problems in which n objects are connected to m objects. 		<u>Division</u>	10x3=30 5x3=15 30 45	