Objective & Strategy	Concrete  Children continue to use dienes or pv counters to add, exchanging ten ones for a ten and ten tens for a hundred and ten hundreds for a thousand.			Pictorial				Abstract	
Y4—add numbers with up to 4 digits				• •	* :	***	3517		
	Hundreds	Tens	Ones	• •	•	Ť		+ 396	
		000000	00000	7	1	5	1	3913	
		11111		Draw represen	tations us	ing pv g	rid.	Continue from previous work to carry hundreds as well as tens.  Relate to money and measures.	
Y5—add numbers with more than 4 digits.  Add decimals with 2 dec- imal places, including money.	As year 4	es tenths	hundredths	2.37 + 8	145	000	hundred \$5	72.8 +54.6 127.4 1 1 € 2 3 · 5 9 + € 7 · 5 5 € 3   ·	
money.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ecimal place value exchange for addi		1	.1		6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Y6—add several num- bers of increasing com- plexity	As Y5			As Y5				8 1,05 9 3,66 8 15,30 1 + 20,551 1 2 0,5 7 9	
Including adding money, measure and decimals with different numbers of decimal points.								2 3 · 3 6 1 9 · 0 8 0 9 · 0 8 0 5 9 · 7 7 0 + 1 · 3 0 0 9 3 · 5 1 1	

Objective & Strategy	Concrete	Pictorial	Abstract
Subtracting tens and ones Year 4 subtract with up to 4 digits. Introduce decimal subtraction through context of money	234 - 179  O O O O O O O O O O O O O O O O O O O	Children to draw pv counters and show their exchange—see Y3	2 x 5 4 - 1 5 6 2 1 1 9 2 Use the phrase 'take and make' for exchange
Year 5- Subtract with at least 4 dig- its, including money and measures. Subtract with decimal values, including mixtures of integers and decimal and aligning the decimal	As Year 4	Children to draw pv counters and show their exchange—see Y3	"3" X '0 '8 '6 - 2 1 2 8 2 8,9 2 8 Use zeros for place- holders 3 7 2 · 5 6 7 9 6 · 5
Year 6—Subtract with increasingly large and more complex numbers and decimal values.			**************************************

Objective & Strategy	Concrete	Pictorial	Abstract	Y5-6
Column Multiplication for 3 and 4 digits x 1 digit.	Hundreds Tens Ones It is important at this stage that they always multiply the ones first.  Children can continue to be supported by place value counters at the stage of multiplication. This initially done where there is no regrouping. 321 x 2 = 642	× 300 20 7 4 1200 80 28	327 x 4 28 80 1200 1308  3 2 7 X 4 This will lead to a compact method.	
Column multiplication	Manipulatives may still be used with the corresponding long multiplication modelled alongside.	Continue to use bar modelling to support problem solving	1 8 18 x 3 on the first row  (8 x 3 = 24, carrying the 2 for 20, then 1 x 3)  2 3 4 18 x 10 on the 2nd row. Show multiplying by 10 by putting 2ero in units first  1 2 3 4 0 (1234 x 6)  1 9 7 4 4	ICATION X

Objective &	Concrete	Pictorial	Abstract
Divide at least 3 digit numbers by 1 digit. Short Division	3 2  Use place value counters to divide using the bus stop method alongside  Use place value counters to divide using the bus stop method alongside  42 ÷ 3=  Start with the biggest place value, we are sharing 40 into three groups. We can put 1 ten in each group and we have 1 ten left over.	Students can continue to use drawn diagrams with dots or circles to help them divide numbers into equal groups.  Encourage them to move towards counting in multiples to divide more efficiently.	Begin with divisions that divide equally with no remainder.  2 1 8 3 4 8 7 2  Move onto divisions with a remainder.  8 6 r 2 5 4 3 2  Finally move into decimal places to divide the total accurately.  1 4 6 16 21 3 5 5 1 1 0

Y4-6

5