PROGRESSION IN TEACHING

MENTAL METHODS

YEAR GROUP	MENTAL WORK
R	Lots of practical work and maths talk 1) Say numbers 1 to 10 accurately 2) Counting to 20 and beyond forwards and backwards 3) Using vocabulary of addition and subtraction 4) Start to know 1 more and 1 less
1	1)Counting to and across 100, forwards and backwards 2) Count in multiples of 2,5,10 3) Know 1 more, 1 less than a given number 4) Know and use addition and subtraction facts within 20, inc number bonds for 10 5) Add and subtract 1 and 2-digit numbers within 20 6) Know all doubles and halves of numbers to 10

2	1)Count in multiples of 2,3 and 5 from 0 and in tens from any number, forwards and backwards 2) Partition 2-digit, then 3-digit numbers in different ways 3) Add a single digit to a 2-digit number 4) Add a multiple of 10 to a 2-digit number 5) Add two 2-digit numbers 6) Add three 1-digit numbers 7) Know by heart all number bonds within 20 and those that make 20 and all subtraction facts 8) Know by heart all bonds of multiples of 10 9) Recall and use doubles and halves of all numbers to 20 10) Recall and use all multiplication and division facts for the 2,5 and 10 times tables up to 12 X. 11) Apply increasing understanding of mental facts and methods to solving problems using addition, subtraction, multiplication and division, in context

3	1)Count in multiples of 4,8,50 & 100 from 0, forwards and backwards, inc negative numbers 2) Know 10 more or less & 100 more or less than a given number 3) Know by heart all sums and differences of multiples of 10 up to at least 100 4) Know by heart all number bonds that total 100 5) Add a single digit to a 3-digit number 6) Add a multiple of 10 to a 3-digit number 7) Add a multiple of 100 to a 3-digit number 8) Use all mental methods to solve problems involving addition, subtraction, multiplication & division, in context 9) Estimate answers to problems use inverse to check 10) Recall and use all multiplication and division facts for 3X, 4X and 8X tables up to 12X 11) Round any number to the nearest 10 or 100

4	1)Count in multiples of 6,7,9,25 and 1000 from 0, forwards and backwards 2) Know 1000 more or less than a given number 3) Round any number to the nearest 100 or 1000 4) Recall and use doubles or halves of any 2-digit number 5) Recall and use all multiplication and division facts for 6X, 7X and 9X tables and all tables up to 12 X 12 6) Use place value and known facts to multiply and divide 7) Recognise and use factor pairs and commutativity in mental calculations 8) Use all mental methods to solve problems involving addition, subtraction, multiplication and division, in context 9) Round decimals with one decimal place to the nearest whole number

5	1)Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 2) Count forwards and backwards with positive and negative whole numbers through zero 3) Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 4) Add and subtract mentally with increasingly large numbers 5) Use all mental methods to solve multi-step problems, in context 6) Know, recall and use factors and multiples to solve problems 7) Multiply and divide numbers mentally, drawing on known facts 8) Round decimals with two decimal places to the nearest whole number and to one decimal place 9) Add and subtract tenths, and whole numbers and tenths

6	1)Round any whole number to a required degree of accuracy 2) Perform mental calculations with increasingly large numbers and mixed operations 3) Recall and use **all** mental methods to solve problems involving addition, subtraction, multiplication and division, fractions, decimals and percentages, in context

Little Bloxwich C of E Primary School

7.11.2013