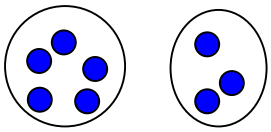
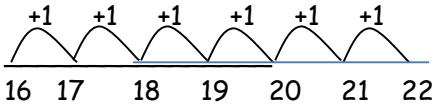
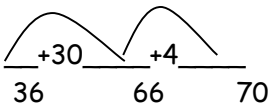
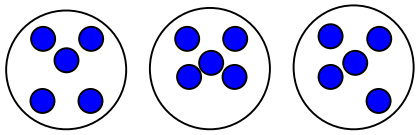
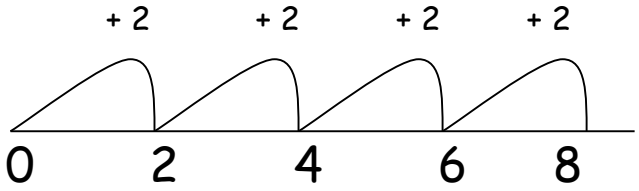
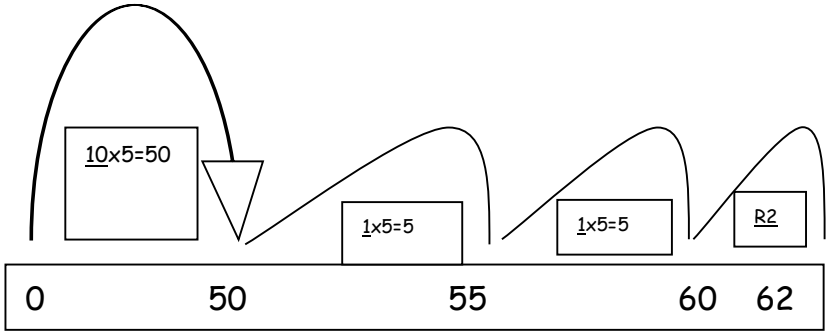
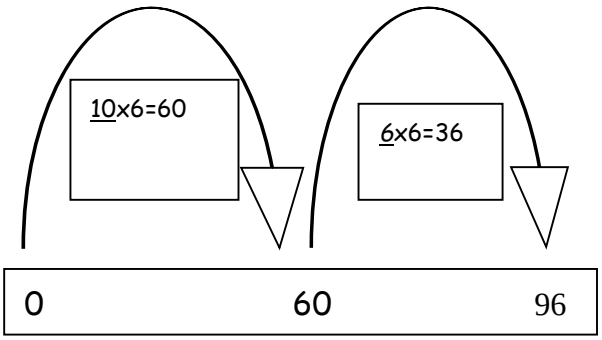
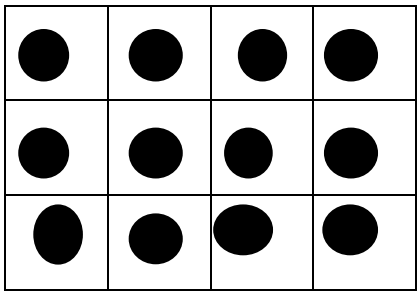
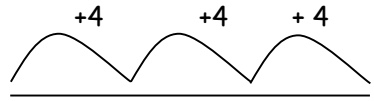
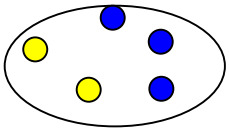
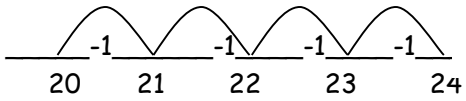
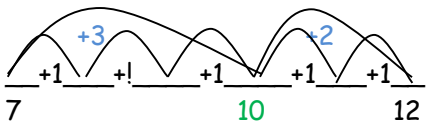
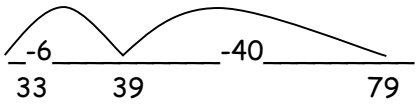
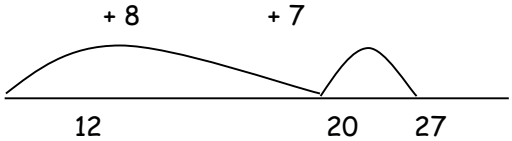
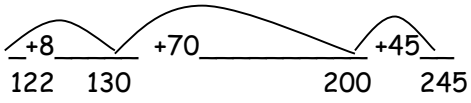
Lower Level 1 Rec/year 1	Combining sets of objects 5 + 3 = 8 5 + 3 = 8 	Note: At this stage children should be working with a variety of apparatus. **One digit numbers up to 10**
Level 1 Year 1/ Start of year 2	Counting on 6 +16 =  	Note: At this stage children should not record their own number lines, instead they should use a given number line template. Children should start on the number line at the most significant number. Note: From the number line children then should progress to a number square using jumps of 10 and 1 **One and a two digit numbers up to 20**
Level 2 Year 2	TU 34+36  	Note: Children should always start on the number line with the most significant number and label the TU of the small number. Note: Make sure children label the T and U **Two, two digit numbers.**
Higher level 2 Level 3 (Year 3 and autumn year 4)	Counting on from the largest number 15 + 12 = 27 T 10+ 10= 20 U 5+2=7 20+7=27 Partitioned method: 234+294 H T U 200 90 4 +200 30 4 100 500 20 8 Recombine =528	<Informal Jotting Note: Make sure children are adding the most significant numbers first, partition and then recombine. **Starting with a three digit number by a two digit number and progressing to tens of thousands as children move through level 3. Within higher level 3/ end of year 4 start to work 4 digit**

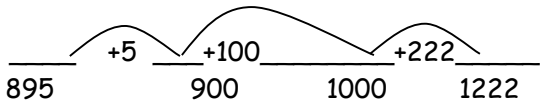
Level 4 onwards End of year 4 onwards.	5684 156 584 0 1 1	Note: Make sure the children recognise the place value of the numbers they are carryin Note: Year 4 children to stay with 4 digit numbers. **Consolidate all types of numbers. Move to adding numbers up to millions and decimals up to 3 decimal places.**

Level 2 Year 2	**Sharing** 15 ÷ 3 = 5  **Grouping on a number line** 8÷2=4 	**Children will be introduced to division through sharing.** **After sharing children move onto grouping on a number line in order to divide.** At this stage it is important that children see division as grouping rather than sharing so that they make links to their multiplication facts.
Lower 3 Year 3 Level 3 End of Year 3 autumn year 4	62÷5=12r2  96÷6=16 	**Within level 3 children will use the chunking method on a number line in order to divide. They will use their known facts.** **Within this method they will start with dividing TU by U and progress to HTU by U.**

Level 4 and level 5 End of year 4 and year 5	**Short division** 98 ÷ 7 becomes $\begin{array}{r} 1\ 4 \\ 7\overline{)\,9\ 8} \\ \quad 2 \end{array}$ Answer: 14 432 ÷ 5 becomes $\begin{array}{r} 8\ 6\ r2 \\ 5\overline{)\,4\ 3\ 2} \\ \quad 3 \end{array}$ Answer: 86 remainder 2 496 ÷ 11 becomes $\begin{array}{r} 4\ 5\ r1 \\ 11\overline{)\,4\ 9\ 6} \\ \quad 5 \end{array}$ Answer: $45\frac{1}{11}$	Short and long division.
Year 5 onwards	**Long division** 432 ÷ 15 becomes $\begin{array}{r} 2\ 8\ r12 \\ 15\overline{)\,4\ 3\ 2} \\ 3\ 0\ 0 \\ \hline 1\ 3\ 2 \\ 1\ 2\ 0 \\ \hline 1\ 2 \end{array}$ Answer: 28 remainder 12 432 ÷ 15 becomes $\begin{array}{r} 2\ 8 \\ 15\overline{)\,4\ 3\ 2} \\ 3\ 0\ 0 \quad 15\times20 \\ \hline 1\ 3\ 2 \\ 1\ 2\ 0 \quad 15\times8 \\ \hline 1\ 2 \end{array}$ $\frac{12}{15} = \frac{4}{5}$ Answer: $28\frac{4}{5}$ 432 ÷ 15 becomes $\begin{array}{r} 2\ 8\cdot8 \\ 15\overline{)\,4\ 3\ 2\cdot0} \\ 3\ 0 \\ \hline 1\ 3\ 2 \\ 1\ 2\ 0 \\ \hline 1\ 2\ 0 \\ 1\ 2\ 0 \\ \hline 0 \end{array}$ Answer: 28·8	**In order for this method to be successful children must be able to use their known facts and have a clear understanding of x by 10 100 and 1000.**

Level 1 Year 2	Count repeated groups of the same size practically.	
Level 2 and lower 3 Year 2	**Arrays** 4 3  3x4 = 12 4 + 4 + 4 = **Repeated addition** 3 X 4 = 12  	**Children should be taught arrays. They need to understand the vocabulary columns and rows.** **Children will use repeated addition on a number line if they are unsecure with their multiplcation facts.** **Note: the second number is the number repeated.**
Level 3 and lower level 4 Year 3 and aut year 4	**Partitioning** 43x8 =344 40x8=320 3x8= 24 230+24=344 **Grid method** 43 x 8 = 344 Approximation 40 x 8 = 320 40 3 8 | 320 | 24 | = 344	**When starting to work with TU x U numbers, children will partition in order to multiply and progress onto a more formal grid.** **Within the more formal method, children should progress to TU by TU and HTU x U**
Middle level 4 and level 5 End of year 4> Year 5 onwards	538 $\overset{3\ 6}{\ }8$ 4304 72 X98 $5_{1}76$ 6480 7056 1 1	**When moving onto a formal method (long multiplication) it is important that children have a solid understanding of place value of numbers when x by 10 100 and 1000. Children need to understand the roll of the zero (place holder) when moving through columns.** **Note: Before using this method to multiply decimal numbers, children should be confident using grid method to multiply decimal number so that there is a firm understanding of the place value.**

Lower Level 1 Rec and year 1	**Taking away** sets of objects 5 - 3 = 2 5 - 3 = 2 	Note: At this stage, a variety of practical apparatus should always be used. **One digit numbers up to 10**
Level 1 Year 1	**Take away/Counting back** 24-4=  20 21 22 23 24 **Finding the difference** 12-7 =  7 10 12	Note: At this stage, children do not record their own number line until they are confident using a practical template. Children should then progress onto using a number square in jumps of 1 and 10. Note: Those children who are confident with tens numbers (safe numbers) can bridge those that are not count in 1s. **One and a two digit numbers.**
Level 2 Year 2 All methods should be supported by practical apparatus for visual learning. Year 3	**Take away/Counting back** 79-46=  33 39 79 Finding a small difference 27-12=  12 20 27 245-122  122 130 200 245	Note: It is important that the children understand the relationship between addition and subtraction, therefore these method should be taught alongside each other. Note: By the end of Year 2 children should understand the relationship between take away and finding the difference. Note: Children must jump to 'safe numbers' (multiples of 10) with their first two jumps. They must not do more than 3 jumps on their number line. **Two and three digit numbers.**

Level 4 Year 4 aut	1222-895  198-59 80 18 100 + 30 + 8 - 50 + 9 100 + 30 + 9 8 1 1 9 8 - 5 9 1 3 9	Note: Follow same rules as above. Note: The expanded method should be used in order to teach the understanding of the closed method. Then move children onto a closed method. In Year 4 the closed method should be taught with numbers up to 4digits and moving onto decimal numbers when place value is secure. When moving onto borrowing it is good practice to verbally reinforce the place value of each number when modelling. It is good practice to initially use the number line approach when children start using decimals. **Starting with two and three digit numbers up to thousands using the number line.** **Carrying method- consolidate all numbers up to tens of thousands.** **Start to work with tenths if place value is secure.**

Level 4 onwards End of year 4 on wards	8 1 11198 159 11039	Note: Add increasingly larger numbers using the closed method including numbers with decimals. Year 4 to stay with thousand numbers Note: At this stage children will have been taught a range of methods however children should be encouraged to choose the most suitable method remembering to always rely on their mental maths capabilities first. **Consolidate all numbers. Start to work with millions and decimals numbers up to three decimal places.**