## Numicon teaching progression: Number, Pattern and Calculating 2 and Geometry, Measurement and Statistics 2

Fluency of basic skills : counting, number bonds, multiplication \& division to be taught and then embedded as part of Maths introduction, Early bird \& precision teaching.
Differentiation via the Number progression across year groups.
Problem solving - Use Numicon Milestone Assessment Cards for appropriate year group (Oxford Owl Numicon Resources). Staff meeting to support mapping Milestone cards to activities taught.
$\left.\begin{array}{|l|l|l|l|}\hline \text { Y1 I can statement } & \text { Y2 I can statement } & \text { Y3 I can statement } & \text { Activity to be taught } \\ \hline & \begin{array}{l}\text { Getting Started } \\ \text { Getting started with Number, Pattern and } \\ \text { Calculating 2 }\end{array} & & \begin{array}{l}\text { I }\end{array} \\ \hline \begin{array}{l}\text { I can use mental methods to add to 20. } \\ \text { I can use mental methods to subtract from 20. } \\ \text { problems. } \\ \text { I can use mental methods to solve subtraction } \\ \text { problems }\end{array} & \begin{array}{l}\text { I can add and subtract numbers mentally. } \\ \text { I can mentally add and subtract a 3 digit number } \\ \text { Ind ones. } \\ \text { I can mentally add and subtract a 3 digit } \\ \text { I can ment and tens. } \\ \text { and hundreds. }\end{array} & \text { Y2 Cald and subtract a 3 digit number }\end{array}\right\}$

| I can use the language of equal to, more than, less than, less than, fewer, least. I can identify and represent numbers using objects and pictorial representations including number lines. | I can identify, represent and estimate numbers using different representations including using the number lines. | I can identify represent and estimate numbers using different representations | Y2 Calculating 4 Activity 8 Y2 NNS 2 Activities 3-7 (repeated) |
| :---: | :---: | :---: | :---: |
|  | I can recognise odd and even numbers. |  | Y2 Pattern \& Alg 4 Activity 12358910 |
| I can solve problems to 20. | I can use place value \& number facts to solve problems (repeated) | I can use place value \& number facts to solve problems (repeated) | Y2 Calculating 6 Activities 1-5 <br> Y2 NNS3 Activities 3, 4,5 |
| I can count in multiples of 2 s . I can count in mulitples of 10s. I can count in mulitples of 5 s . | I can count in steps of 2 forwards and backwards from any number. <br> I can count in steps of 10 forwards and backwards from any number. <br> I can count in steps of 5 forwards and backwards from any number. <br> I can count in steps of 3 forwards and backwards from any number. | I can count from 0 in multiples of 4. I can count from 0 in multiples of 8 . I can count from 0 in multiples of 50. I can count from 0 in multiples of 100 . | Y2 Pattern and Algebra Activities $5: 3,6,7-12$ <br> Number rods and tracks |
| I can add 1 and 2 digit numbers to 20 including 0. <br> I can subtract 1 digit and 2 digit numbers from 20 including 0 | I can add and subtract number using concrete objects and pictorial representations and mentally including: <br> A two digit number and ones (Calc 7 \& 10) <br> A two digit numbers and tens (Calc 11 and 13) <br> Two two digit numbers (Calc 13) <br> Three one digit numbers (Calculating 12) | I can add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | Y2 Calculating 5 <br> Y2 Calculating 7 <br> Y2 Calculating 10 <br> Y2 Calculating 11 <br> Y2 Calculating 12 <br> Y 2 Calculating 13 <br> Y2 Calculating 14 <br> Y1 Calculating 8 (number bonds and addition / subtraction strategies to 20). |
| I can solve one step problems involving multiplication using concrete, pictorial and arrays with support from the teacher. I can solve one step problems involving division using concrete, pictorial and arrays with support from the teacher. | I can recall and use $x$ facts to $2 x$ table. I can recall and use dividing facts to $2 \times$ table I can recall and use $x$ facts to $5 \times$ table. I can recall and use dividing facts to $5 \times$ table I can recall and use $x$ facts to $5 \times$ table. I can recall and use dividing facts to $5 \times$ table | I can recall and use $x$ facts to $3 x$ table. <br> I can recall and use dividing facts to $3 x$ table <br> I can recall and use $x$ facts to $4 \times$ table. <br> I can recall and use dividing facts to $4 \times$ table <br> I can recall and use $x$ facts to $8 \times$ table. <br> I can recall and use dividing facts to $8 x$ table | Y2 Calculating 8 Act 3 - 8 <br> Y2 Calculating <br> Y3 Calculating 10 Act 2 \& 6 |
| I can calculate answers using concrete operations. <br> I can calculate answers using pictorial representations. <br> I can calculate answers using arrays with support. | I can calculate mathematical statemements for division within the multiplication statements and write using multiplication, division, addition and equal signs. | I can write and calculate mathematical statements for x using multiplication tables they know. <br> I can write and calculate mathematical statements for dividing using $x$ tables they know. I can calculate maths statements for 2 digits $\times 1$ digit number. <br> I can use mental methods to multiply and divide. I can use written methods to multiply and divide. | Y2 Calculating 9 Activity 8 \& 9 <br> Y2 Calculating 15 Activity 1-6 <br> Y3 Calculating 15 Act 6 \& 7 (if ready for formal) |
| I can solve 1 step problems including multiplication. <br> I can solve 1 step problems including division. | I can solve problems involving multiplication using arrays. <br> I can solve problems involving division using arrays. <br> I can solve problems involving $x$ using repeated addition. <br> I can solve problems involving division using pictorial methods. <br> I can solve problems involving $x$ using mental | I can solve missing number problems involving $x$ I can solve missing number problems involving division <br> I can solve problems including positive integer scaling problems. <br> I can solve problems in which n objects are connected to m obkects. | Y2 Calculating 8915 <br> Y3 Calculating 6 Activity 124 <br> Y3 Calculating 7 Activity 123 |


|  | methods. <br> I can solve problems involving division using mental methods. |  |  |
| :---: | :---: | :---: | :---: |
|  |  | I know that multiplication is commutative and division is not. | Y 3 Calculating 6 Activity 3 <br> Y 3 Calculating 7 Activity 4 Use arrays / number rod track to differentiate below Y3. |
| I can recognise half as one of 2 equal parts of an object. <br> I can recognise $1 / 2$ as one of 2 equal parts of a shape. <br> I can recognise $1 / 2$ as one of 2 equal parts of a quantity. <br> I can recognise, find and name $1 / 2$ as one of 2 equal parts. | I can recognise find and name fractions : <br> 1/3 <br> $1 / 4$ <br> 2/4 <br> 3/4 <br> I can write fractions: $1 / 3,1 / 4,2 / 4,3 / 4$ of a length. <br> I can write fractions: $1 / 3,1 / 4,2 / 4,3 / 4$ of a shape. <br> I can write fractions: $1 / 3,1 / 4,2 / 4,3 / 4$ of an object. <br> I can write fractions: $1 / 3,1 / 4,2 / 4,3 / 4$ of a quantity. | I can recognise and use fractions as numbers. I can recognise and use fractions as unit fractions and non unit fractions with small demoninators. <br> I can recognise, find and write fractions of a discrete set of objects. <br> I can recognise, find and write fractions of unit fractions and non unit fractions with a small denominator. | Y2 Calculating 16:12567 |
|  | I can recognise the equivalence of $2 / 4$ and $1 / 2$ | I can recognise and show using diagrams, equivalent fractions with small denominators | Y2 Numbers and the number system 6 Activity 4 Y3 Numbers and the number system 7 Activity 6 Y2 Calculating 16 Activity 456 |
|  |  | I can compare and order fractions with the same denominators <br> I can add and subtract fractions with the same denominator within one whole. Eg 5/7 + 1/7 = 6/7 <br> I can solve problems with all of the above. | Y3 Numbers and the number system 7 Activity 5 Y3 calculating 16 Activity 12456 |
|  | Numbers and the Number System 5 Rounding |  |  |
|  | Pattern and Algebra 6 Logic <br> Pattern \& Algebra 7 <br> Finding all possibilities |  |  |

