Norwich Road Academy - Long Term Plan for Maths

| Reception | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number and Numerical Patterns (NCETM) | -Join in with a counting pattern <br> -Develop cardinality <br> -Compare sets of objects <br> -Use the language of comparison | -Develop subitising and counting skills -Explore the composition of numbers within and beyond 5 . <br> -Identify when two sets are equal or unequal -Connect two equal groups to doubles. -Connect quantities to numerals. <br> -Join in with verbal counts beyond 20 | -Explore a range of representations -Compare quantities and numbers <br> -Develop a sense of magnitude -Find one more and one less than numbers to 10 | -Identify when sets can be subitised or counting is needed <br> -Find 9 and 10 <br> -Compare numbers to 10 <br> -Represent 9 and 10 <br> -Conceptual subitising to <br> 10 <br> -Composition to 10 <br> - Bonds to 10 <br> - Make arrangements of 10 <br> -Doubles to 10 | -Build numbers beyond 10 <br> -Continue patterns beyond 10 <br> -Build numbers beyond 10 <br> -Continue patterns beyond 10 <br> -Verbal counting beyond 20 <br> -Verbal counting patterns | -Add more <br> -How many more <br> -Take away <br> -How many left <br> -Consolidation of numbers to 20 <br> -Composition of numbers to 20 <br> -Representing numbers in different ways -Review counting beyond 20 |
| Shape, Space and Measure (WRM) | -Match objects <br> -Match pictures and objects <br> -Identify a set <br> -Sort objects to a type <br> Explore sorting techniques <br> -Create sorting rules <br> -Compare amounts <br> -Compare size <br> -Compare mass <br> -Compare capacity <br> - Explore simple patterns <br> -Copy and continue simple patterns Create simple patterns | -Explore length <br> -Compare length <br> -Explore height <br> -Compare height <br> -Talk about time <br> -Order and sequence <br> time <br> -Identify and name circles and triangles <br> -Compare circles and triangles <br> -Shapes in the environment <br> -Describe position <br> -Identify and name <br> shapes with 4 sides <br> -Combine shapes with 4 <br> sides <br> Shapes in the environment -My day and night | -Recognise and name 3D shapes -Find 2-D shapes within 3-D shapes -Use 3-D shapes for tasks | -3-D shapes in the environment -Identify more complex patterns -Copy and continue patterns -Patterns in the environment | -Continue patterns beyond 10 <br> -Select shapes for a purpose <br> -Rotate shapes <br> -Manipulate shapes <br> -Explain shape arrangements <br> -Compose shapes <br> -Decompose shapes <br> -Copy 2-D shape pictures <br> -Find 2-D shapes within 3-D shapes | -Explore sharing <br> -Explore grouping <br> -Even and odd sharing <br> -Play with and build doubles <br> -Identify units of repeating patterns <br> -Create own pattern rules <br> -Explore own pattern rules <br> -Replicate and build scenes and constructions <br> -Visualise from different positions <br> -Describe positions -Give instructions to build <br> -Explore mapping <br> -Represent maps with models <br> -Create own maps from familiar places <br> -Create own maps and plans from stories <br> -Deepen understanding -Patterns and relationships |





|  | Week 1 | Week 2 | Week3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
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| $\xrightarrow{\text { ¢ }}$ | Number: Place Value <br> Represent numbers to 100. <br> - Understand the place value of tens and ones. <br> - Understand the place value of hundreds. <br> - Represent numbers to 1000. <br> - Partition numbers into hundreds, tens and ones. <br> - Represent numbers on a number line to 1000, <br> - Find 1, 10 and 100 more and one less than a given number. <br> - Compare objects / numbers to 1000. <br> - Order numbers. <br> - Count in 50s. |  |  | Number: Addition and Subtraction <br> Add and subtract multiples of 100 . <br> - Add and subtract 1 s . <br> - Add and subtract 3 digit and 1 digit numbers - not crossing 10. <br> - Add 2 digit and 1 digit numbers - crossing 10. <br> - Add 3 digit numbers and 1 digit numbers - crossing 10. <br> - Subtract 1 digit number from 2 digit number - crossing 10. <br> - Subtract 1 digit number from 3 digits - crossing 10. <br> - Add and subtract 3 digit and 2 digit numbers - not crossing 100. <br> - Add 3 digit and 2 digit numbers - crossing 100. <br> - Subtract a 2 digit number from 3 digit number - crossing 100. <br> - Add and subtract 100s. <br> - Spot patterns. <br> - Add ones and tens. <br> - Subtract 2 digit numbers from 2 digit numbers - crossing 10 |  |  |  |  | Number: Multiplication and Division <br> - Multiplication - equal groups. <br> - Multiplication using the symbol. <br> - Using arrays. <br> - 2 times table. <br> - 5 times table. <br> - Make equal groups - sharing. <br> - Make equal groups - grouping. <br> - Divide by 2. <br> - Divide by 5 . <br> - Divide by 10. <br> - Multiply by 3. <br> - Divide by 3. <br> - 3 times table. <br> - Multiply by 4. <br> - Divide by 4. <br> - 4 times table. <br> - Multiply by 8. <br> - Divide by 8. <br> - 8 times table. |  |  |  |
| $\stackrel{\sim}{\text { - }}$ | Number: <br> Consolid <br> - Compa <br> - Related <br> - Multiply <br> - Divide <br> - Scaling <br> - Listing <br> from two | 4 and 8 tica atements lations. ts by 1 di by 1 digit <br> le combin s of objec | vision tables. <br> s resulting | Measurement: Length and Perimeter Measure length - introducing millimetres. <br> - Measure length- metres. <br> - Equivalent lengths - metres and centimetres. <br> - Equivalent lengths - millimetres and centimetres. <br> - Compare lengths. <br> - Add lengths. <br> - Subtract lengths. <br> - Measure perimeter. <br> - Calculate perimeter. |  |  | Number: Fractions <br> Make equal parts. <br> - Recognise a half. <br> - Find a half. <br> - Recognise a quarter. <br> - Find a quarter. <br> - Recognise a third. <br> - Find a third. <br> - Unit fractions. <br> - Non-unit fractions. <br> - Equivalence of one half and two quarters. <br> - Count in fractions. |  |  | Measurement: <br> Mass and capacity <br> Measure mass in kilograms and grams. <br> - Compare mass. <br> - Add and subtract mass. <br> - Measure capacity in litres and millilitres. <br> - Compare capacity. <br> - Add and subtract capacity. |  |  |




Year 4/5

|  | Week 1 Week 2 | Week 3Week <br> 4 | Week 5 ${ }^{\text {a }}$ Week 6 ${ }^{\text {a }}$ Week 7 | Week <br> 8 | Week 9 | Week 10 | Week <br> 11 | k 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $$ | Year4 <br> - Represent numbers to 1000. <br> - Partition hundreds, tens and ones. <br> - Represent numbers to 1000 on a number line. <br> - Round numbers to the nearest 10 and 100. <br> - Count in one 1000s. <br> - Partition numbers into thousands, hundreds, tens and ones. <br> - Represent numbers on a number line to 10,000 . <br> - Find 1, 10 and 100 more or less. <br> - Find 1000 more or less. <br> - Compare and order numbers. <br> - Round to the nearest 1000. <br> - Count in 25 s . <br> - Understand negative numbers |  | Number: Addition and Subtraction | Number: Multiplication and Division |  |  | Measurement: Length, Perimeter and Area |  |
|  |  |  | - Y4 Add and subtract 1s, 10s, 100s and 1,000s <br> - Add two 3-digit numbers - not crossing 10 or 100 <br> - Add two 4-digit numbers - no exchange <br> - Add two 3-digit numbers - crossing 10 or 100 <br> - Add two 4-digit numbers - one exchange <br> - Add two 4-digit numbers - more than one exchange <br> - Subtract a 3-digit number from a 3-digit number - no exchange <br> - Subtract two 4-digit numbers - no exchange <br> - Subtract a 3-digit number from a 3-digit number - exchange <br> - Subtract two 4-digit numbers - one exchange <br> - Subtract two 4-digit numbers - more than one exchange <br> - Efficient subtraction <br> - Estimate answers <br> - Checking strategies negative numbers |  |  |  | Year 4 <br> - Equivalent lengths - m and cm <br> - Equivalent lengths - mm and cm <br> - Kilometres <br> - Add lengths <br> - Subtract lengths <br> - Measure perimeter - Perimeter on a grid - Perimeter of a rectangle - Perimeter of rectilinear shapes | Year 5 <br> - Measure perimeter <br> - Perimeter on a grid <br> - Perimeter of rectangles <br> - Perimeter of rectilinear shapes <br> - Calculate perimeter <br> - Counting squares <br> - Area of rectangles <br> - Area of compound shapes <br> - Area of irregular shapes |
|  |  |  |  |  |  |  |  |  |




Year 6

|  | Week 1 | Week 2 | Week 3 | Week 4 |  | Week 5 | Week 6 | Week 7 | Week 8 | Week <br> 9 | Week <br> 10 | Week $11$ | Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ¢ $\frac{1}{3}$ $\frac{1}{3}$ | Number: Place Value <br> Numbers to 10,000 <br> - Numbers to 100,000 <br> - Numbers to <br> 1,000,000 <br> - Numbers to 10 million <br> - Compare and order any number <br> - Round numbers to <br> 10, 100 and 1,000 <br> - Round any number <br> - Negative numbers |  | Number: Four Operations <br> - Add / subtract whole numbers with more than 4 digits <br> - Use inverse operations (addition and subtraction) <br> - Solve multi-step addition and subtraction problems <br> - Understand short multiplication written methods <br> - Understand long multiplication written methods <br> - Understand short division <br> - Understand long division <br> - Find factors of numbers <br> - Find common factors and multiples <br> - Find prime numbers to 100 <br> - Find square and cube numbers <br> - Use mental calculations and estimation <br> - Reason from known facts |  |  |  |  | Number: Fractions <br> - Recognise equivalent fractions <br> - Simplify fractions <br> - Change improper fractions to mixed numbers and vice versa <br> - Order fractions on a number line <br> - Compare and order fractions <br> - Add and subtract fractions <br> - Add and subtract mixed numbers <br> - Multiply fractions by integers <br> - Divide fractions by integers <br> - Find fractions of an amount <br> - Find the whole, given a fraction of an amount. |  |  |  | Measurement: Converting units <br> - Understand metric units <br> - Convert metric measures <br> - Miles and kilometres <br> - Use imperial measures |  |
| $\stackrel{00}{\text { ¢ }}$ | Number: language <br> - Calcula <br> - Using s <br> - Solve r <br> proportio | Ratio <br> nding the of ratio <br> ing ratio ale factors io and problems | Number: Algebra <br> - Find a rule (function machines) <br> - Forming expressions <br> - Substitutions <br> - Formulae <br> - Forming equations <br> - Solving one and two-step equations <br> - Find pairs of values <br> - Enumerate possibilities |  |  | Number: Decimals <br> Decimals to 2 decimal places <br> - Decimals to 3 decimal places <br> - Multiply / Divide by 10, 100 and 1000 <br> - Multiply / divide decimals by integers <br> - Decimals as fractions <br> - Fractions to decimals <br> Number: Percentages <br> Understand percentages <br> - Changing fractions to percentages <br> - Equivalent fractions, decimals and percentages <br> - Order fractions, decimals and percentages <br> - Find percentages of amounts |  |  |  | ent: Perim <br> Volume <br> pes with the <br> perimeter <br> shapes <br> area of a tri <br> area of a <br> am <br> me by cou <br> volume of | ter, <br> of <br> angle <br> ting | Statistics <br> - Read and interpret line graphs <br> - Draw line graphs and use <br> to solve problems <br> - Name the parts of a circle <br> - Read, interpret and draw pie charts <br> - Calculate the mean |  |
|  | Geometry: Properties of Shape <br> Measure angles with a protractor <br> - Calculate missing angles <br> - Vertically opposite angles <br> - Angles in a triangle <br> - Angles in quadrilateral <br> - Angles in regular polygons <br> - Draw shapes accurately <br> - Draw nets of shapes |  |  | Geometry: <br> Position and <br> Direction <br> - Identify coordinates in the first quadrant - Identify coordinates in all four quadrants <br> - Translations <br> - Reflections |  | olidation and <br> S Preparation | Consolidation, problems solving, investigations |  |  |  |  |  |  |



# Norwich Road Academy 

