## Manor Drive Primary Academy

## Maths Curriculum Overview <br> Year 2

| Block 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W1 | 2.1.1 Read numbers to 100 aloud and write them in words, relating these to a number line | 2.1.2 Read numbers to 100 aloud and write them in words relating these to a number line | 2.1.3 Make numbers from given digits that meet criteria (e.g. even number, greatest number, etc) | 2.1.4 Recognise the tens and ones in 2-digit numbers using dienes | 2.1.4 Recognise the tens and ones in 2-digit numbers using dienes |
| W2 | 2.1.5 Express a 2-digit number as a partition sum (e.g. $45=40+5$ ) | 2.1.5 Express a 2-digit number as different partition sums (e.g. $45=40+5$ and $45=$ $30+15)$ | 2.1.6 Recognise where different two digit numbers would be on a 0-100 number-line with only multiples of ten shown | 2.1.6 Recognise where different two digit numbers would be on a 0-100 number-line with only 0 and 100 shown | 2.1.7 Identify the greater number of two 2-digit numbers, relating these to a number line |
| W3 | 2.1.8 Use is greater than', 'is less than' and 'is equal to' to compare two 2-digit numbers, relating these to a number line; use 'most' and 'least' when comparing | 2.1.9 Use >, < and = to compare two 2-digit numbers, relating these to a number line | 2.1.10 Write sets of three 2-digit numbers in ascending and descending order | 2.1.10 Write sets of three 2-digit numbers in ascending and descending order | Consolidation of 2.1 |
| W4 | Consolidation of 2.1 | 2.3.1 Count forwards and backwards in steps of two from any between number 0100 | 2.3.2 Count in steps of three from any number between 0 100 using a number line | 2.3.3 Count in steps of 5 forwards and backwards from multiples of 5 between 0-100 | 2.3.4 Count forwards and backwards in 2s, 3s and 5s from multiples of each number between 0-100 |
| W5 | 2.3.5 Relate numbers shown on a number line to a number shown in dienes and vice versa; estimate and know numbers on a number line up to 100 | 2.3.6 \& 2.3.7 Estimate the total of groups of objects between 20100 using 'rough' groups of ten within the group | 2.3.8 Understand the place value of given digits in a number and the purpose of zero as a 'place holder' | Consolidation of 2.3 | 2.2.1 Know that there are 60 minutes in an hour, and use this to decide whether given times are more/less than one hour |
| W6 | 2.2.2 Know that there are 24 hours in a day and 12 hours in half a day | 2.2.3 Tell the time on the hour, half past, quarter past and quarter to | 2.2.3 Tell the time on the hour, half past, quarter past and quarter to | 2.2.4 Tell the time to the nearest 5 minutes, converting analogue time into digital in each case | 2.2.5 Draw hands on a clock to show time to 5 minute intervals |

## Block 2

| W1 | 2.2.6 Find times that are minutes later or earlier than a given time using differences that are multiples of 5 minutes using a blank number line | 2.2.7 Relate times to events during the school day | 2.2.8 Find the interval between two times, both in multiples of 5minutes, using a number-line | 2.2.9 Use >, < or = to <br> compare given amounts of time | Consolidation of 2.2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W2 | 2.4.1 Recognise the correct equipment for measuring volume, mass, length and temperature and match these to units | 2.4.2 Use rulers and metre sticks to measure lengths to the nearest cm | 2.4.3 Use and read scales to the nearest kg | 2.4.4 Read scales on jugs and measuring cylinders to determine how much liquid is contained to the nearest 10 mL | 2.4.5 Read thermometers (and pictures representing them) to the nearest ${ }^{\circ} \mathrm{C}$ |
| W3 | 2.4.6 Determine sensible units of measurement for measuring length in real-life contexts | 2.4.7, 2.4.8 \& 2.4.9 <br> Put objects in ascending or descending order based on their measurements |  <br> 2.4.12 Recognise all coins and notes up to $£ 20$, and find total value of various coins | 2.4.13 Solve <br> problems where totals of money need to be found from coins | Consolidation of 2.4 |
| W4 | Add 1-digit numbers to 2-digit numbers inside 30 without exchange (e.g. $24+5$ $=29)$ first with dienes then without | Add 1-digit numbers to 2-digit numbers inside 100 without exchange (e.g. $64+5$ = 69) first with dienes then without | Add 1-digit numbers to 2-digit numbers inside 30 with exchange (e.g. $28+5$ $=33$ ) first with then without dienes | Add 1-digit numbers to 2-digit numbers inside 100 with exchange (e.g. $68+5$ $=73$ ) first with then without dienes | Add 10 to multiples of 10 first using dienes and then without (noting that addition is commutative) |
| W5 | Add multiples of 10 to other multiples of 10 inside 100 (e.g. $40+30$ $=70$ ) first with dienes then without | Partition 2-digit numbers into tens and ones, including multiples of 10 first with dienes then without | Add numbers 11-19 to multiples of 10 (e.g. 40 $+17=57$ ) first using dienes then without (noting that addition is commutative) | Add 2-digit numbers to other 2 digit numbers inside 40 without exchange first using dienes then without (noting that addition is commutative) | Add 2-digit numbers to other 2 digit numbers inside 100 without exchange first using dienes then without (noting that addition is commutative) |
| W6 | Add 2-digit numbers to 2-digit numbers with exchange inside 40 (e.g. $17+15=20$ $+12=32$ ) first using dienes then without | Add 2-digit numbers to 2-digit numbers with exchange inside 100 (e.g. $47+35=70$ $+12=82$ ) first using dienes then without | Add 1-digit numbers or 2-digit numbers to 2digit numbers inside 100 | Add 1-digit numbers or 2-digit numbers to 2digit numbers inside 100 | Consolidation of 2.5 (a) |


| (noting that addition is <br> commutative) | (noting that addition is <br> commutative) |  |  |
| :--- | :--- | :--- | :--- |

Block 3

| W1 | Consolidation of 2.5 (a) | Subtract 1-digit numbers from numbers 11-19 without bridging (e.g. 17 $-4=13$ ) modelling on a number line first, then calculating without | Subtract 1-digit numbers from 2-digit numbers inside 100 without bridging (e.g. 67-4 = 63) modelling on a number line first, then calculating without | Subtract 1-digit numbers from numbers 11-19 with bridging (e.g. 17-9 = 8) modelling on a number line in two jumps | Subtract 1-digit numbers from numbers inside 100 with bridging (e.g. 67-9 $=58$ ) modelling on a number line in two jumps |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W2 | Subtract multiples of 10 from other multiples of 10 inside 100 first using dienes and then without | Subtract multiples of 10 from 2-digit numbers, including multiples of 10 modelling with dienes first to see why this leaves the ones unchanged | Subtract 2-digit numbers from other 2digit numbers without bridging using a number line (noting that subtraction is not commutative) | Subtract 2-digit numbers from other 2-digit numbers with bridging using a number line, including 2 steps to bridge through a multiple of 10 | Subtract 2-digit numbers from other 2-digit numbers with bridging using a number line, including 2 steps to bridge through a multiple of 10 |
| W3 | Subtract 1-digit numbers or 2-digit numbers from 2-digit numbers inside 100 | Subtract 1-digit numbers or 2-digit numbers from 2-digit numbers inside 100 | Subtract 2-digit numbers from other 2digit numbers that are near to one another by counting on, knowing when this might be a better strategy than a number line | Consolidation of 2.5 (b) | Consolidation of 2.5 (b) |
| W4 | Consolidation of 2.5 (b) | 2.5.12 \& 2.5.13 Choose and apply method for adding and subtracting two numbers (mixed questions) | 2.5.12 \& 2.5.13 Choose and apply method for adding and subtracting two numbers (mixed questions) | 2.5.14 Add three single digit numbers understanding that commutativity of addition means these can be added in any order | 2.5.14 Add three single digit numbers understanding that commutativity of addition means these can be added in any order |
| W5 | 2.5.16 Understand that addition is commutative and that subtraction isn't and identify pairs of expressions that will give the same answer (e.g. $7+5$ and $5+7$ ) and pairs that won't (e.g. 6-2 and 2-6) | 2.5.20 Solve addition word problems within a context of aggregating (e.g. combination of static sets) visualising this with a part-whole bar model | 2.5.20 Solve addition word problems within a context of augmenting (i.e. change) visualising this with a part-whole bar model | 2.5.20 Solve addition word problems within a context of additive comparison (i.e. comparing when you know the smaller amount and the difference) visualising this with a comparison bar model | 2.5.21 Solve subtraction problems within a partition context of parts of a whole (e.g. A bag contains 30 green and red balls. If 16 are red, how many are green?) using a bar model |
| W6 | 2.5.21 Solve subtraction problems within a reduction context (i.e. change) using a bar model | 2.5.21 Solve subtraction problems within the context of comparison (e.g. Tom has 16 sweets. Ali has 9 sweets. How many more | 2.5.20 \& 2.5.21 Decide whether to add and subtract with a variety of addition and subtraction word problems and then solve them | 2.5.22 Solve a variety of problems involving measures (without converting) using addition and subtraction | Consolidation of 2.5 (c) |


| $\text { Block } 4$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W1 | 2.6.5 Find the total from a group of coins, visualising with bar models | 2.6.6 Find the smallest number of coins to make a total. | 2.7.1 \& 2.7.3 <br> Recognise and name 2D shapes including circles, triangles, rectangles (including squares), pentagons, hexagons and octagons and know that the orientation doesn't change the shape | 2.7.2 Count the <br> number of sides and vertices on different 2D shapes, relating the two in polygons and understanding the term 'polygon' | 2.7.1 Understand the language of "regular" and "irregular" in reference to polygons; recognise which shapes are regular through reference to equal sides and equals angles, and know that a circle is also regular |
| W2 | 2.7.4 Recognise whether shapes have a line of symmetry | 2.7.5 Colour simple shapes to make them symmetrical | 2.7.6 Sort shapes using simple Venn diagrams | 2.7.7 Recognise and name common 3D shapes including spheres, cubes, cuboids, pyramids, prisms and cylinders; understand the vocabulary of "faces", "edges" and "vertices" | 2.7.8 \& 2.7.9 <br> Describe common 3D shapes in terms of their number of faces, edges and vertices |
| W3 | Consolidate 2.7 | Consolidate 2.7 | 2.8.9 \& 2.8.15 <br> Understand multiplication as repeated addition (revision) | 2.8.9 Understand multiplication as arrays and link this to repeated addition (revision) | 2.8.1 Understand multiplication as scaling (revision) |
| W4 | 2.8.1 Understand division as repeated subtraction (grouping) (revision) | 2.8.1 Understand division as repeated as equal sharing (revision) | 2.8.9 Solve simple multiplication calculations using 2, 5 and 10 times table (e.g. $3 \times 5=$ ) | 2.8.9 Solve simple multiplication calculations using 2, 5 and 10 times table (e.g. $3 \times 5=$ _) | 2.8.9 Solve simple division calculations using 2, 5 and 10 times table (e.g. $\left.15 \div 3=\_\right)$ |
| W5 | 2.8.9 Solve simple division calculations using 2, 5 and 10 times table (e.g. $15 \div 3=$ _) | 2.8.9 Solve a mixture of simple multiplication and division calculations | 2.8.1 Solve missing number multiplication problems | 2.8.1 Solve missing number division problems | 2.8.1 Solve a mixture of missing number multiplication and division problems |
| W6 | 2.8.2 Recognise that equations should be balanced, filling missing gaps to make both sides of equations containing multiplication and division - with equal (e.g. $4 x_{-}=2 \times 10$ ) | 2.8.3 Solve <br> multiplication problems in the context of repeated addition or arrays (e.g. A box contains 3 cakes. How many would be in 10 boxes?) | 2.8.3 \& 2.8.18 Solve multiplication problems in the context of scaling where a single thing increases (e.g.Grace's plant was 10 cm tall. It grew until it was 3 times as tall. How tall is it now?) | 2.8.3 \& 2.8.18 Solve multiplication problems in the context of scaling where two things are compared (e.g. Amir is three times as tall as his pet dog which is 30 cm tall. How tall is Amir?) | 2.8.4 Solve division problems in the context of repeated subtraction/grouping (e.g. 30 sweets are put into groups of 5 . How many groups are there?) |

## Block 5

| W1 | 2.8.4 Solve division problems in the context of sharing (e.g. 30 sweets are shared between 5 people. How many does each person get?) | 2.8.20 Decide when to use multiplication and division in written problems (without solving) | 2.8.20 Decide when to use multiplication and division in written problems and solve them | 2.8.6 Recognise multiples of 2 as even numbers and recognise odd numbers as a multiple of 2 plus or minus 1 | 2.8.5 Recognise multiples of 5 and 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W2 | 2.8.7 Interpret multiplication calculations in words and from a given multiplication fact, create two related division facts. | 2.8.8 Interpret division calculations in words and from a given division fact, create two related multiplication facts. | 2.8.10 Continue patterns that count forward or backward in jumps of 2,5 or 10 | $2.8 .11 \& 2.8 .13$ <br> Understand using arrays why multiplication is commutative | 2.8.11 \& 2.8.12 <br> Understand that multiplication is commutative and division is not; identify pairs of expressions that will give the same answer (e.g. $7 \times 5$ and $5 \times 7$ ) and pairs that won't (e.g. 6 $\div 2$ and $2 \div 6$ ) |
| W3 | 2.8.20 Decide when to use multiplication, division, addition or subtraction in written problems (without solving) | 2.8.20 Decide when to use multiplication, division, addition or subtraction in written problems (and solve them) | 2.8.20 Decide when to use multiplication, division, addition or subtraction in written problems (and solve them) | Consolidate 2.8 | Consolidate 2.8 |
| W4 | Consolidate 2.8 | Consolidate 2.8 | Consolidate 2.8 | 2.9.1 Read information from pictograms | 2.9.2 Read information from bar charts |
| W5 | 2.9.3 Read information from tables and tally charts | 2.9.3 Read information from pictograms, bar charts, tables and tally charts | 2.9.4 Compare data in pictograms to solve word problems | 2.9.5 Compare data in tables and tally charts to solve word problems | 2.9.6 Compare data in bar charts to solve word problems |
| W6 | 2.9.6 Compare data in pictograms, bar charts, tables and tally charts to solve word problems | 2.9.7 Complete incomplete pictograms, bar charts, tables and tally charts using given information | 2.9.8 Collect discrete data and create a tally chart to show this (e.g. number of children with different colour eyes) | 2.9.9 Represent data in a pictogram | 2.9.10 Represent data in a bar chart |

## Block 6

| W1 | 2.9.12 Interpret information from collected and represented data | Consolidate 2.9 | Consolidate 2.9 | 2.10.1 Recognise $1 / 2$, $1 / 3,1 / 4,1 / 5$, and $1 / 6$ of different shapes | 2.10.1 Understand the vocabulary "numerator" (how many) and "denominator" (name of the fraction pieces) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W2 | 2.10.1 Recognise $2 / 3$, $2 / 4$ and $3 / 4$ of shapes | 2.10.2 Shade in shapes to show $1 / 2,1 / 3$, $1 / 4,1 / 5,1 / 6,2 / 3,2 / 4$ and $3 / 4$. | 2.10.3 Represent fractions using bar models; ; recognise that $2 / 2,3 / 3,4 / 4$, etc represents a whole one | 2.10.4 Find $1 / 2,1 / 3$ and $1 / 4$ of sets of objects by relating to a bar model representation | 2.10.5 Find $2 / 3,2 / 4$ and $3 / 4$ of sets of objects by relating to a bar model representation |
| W3 | 2.10.6 Use drawings and a bar model to find $1 / 2,1 / 3$ and $1 / 4$ of quantities | 2.10.7 Use drawings and a bar model to find $2 / 3,2 / 4$ and $3 / 4$ of a quantity | 2.10.8 Know that $1 / 2$ and ${ }^{2} / 4$ are equivalent by representing both in various shapes and in a bar model; ; recognise that $2 / 2,3 / 3$, $4 / 4$, etc represents a whole one | 2.10.9 Understand fractions as also representing parts of a total (e.g. 3 out of 4 on a test is $3 / 4$ correct); recognise that ${ }^{2} / 2,3 / 3$, $4 / 4$, etc represents a whole one | 2.10.9 Solve simple word problems involving fractions of quantities |
| W4 | Consolidate 2.10 | Consolidate 2.10 | 2.11.1 Use <br> vocabulary of movement ("left, right, up, down, forwards, backwards" to describe) | 2.11.2 Identify right angles in shapes and in the real world | 2.11.3 \& 2.11.4 <br> Understand quarter turns as right angles; understand vocabulary of "clockwise" and "anticlockwise" and describe turns in terms of a number of right angles in each direction |
| W5 | 2.11.5 \& 2.11.7 <br> Create and continue patterns using shapes and colours | 2.11.6 Describe given patterns in words | 2.11.8 Identify shapes that are the same but in different orientations | 2.11.9 Compare 3D shapes in terms of numbers of faces, edges and vertices | 2.11.10 Sort shapes into categories based on their properties |
| W6 | 2.11.11 Identify 3D shapes in the real world | 2.11.12 Identify the 2D shapes that are the faces of common 3D shapes | Consolidate 2.11 | Consolidate 2.11 | Consolidate 2.11 |

## Arithmetic

Fractions

Geometry

Measures \& Time

Properties of number and place value

Statistics

