

# Ox Close Federation

## Maths Medium Term Planning

### Year 1



<b>Autumn</b>					
<b>Topic</b>	<b>Suggested teaching weeks</b>	<b>White Rose Small Steps</b>	<b>Link to National Curriculum and NRIC Problem Solving</b>	<b>Link to Ready to Progress documents</b>	<b>Key Vocabulary</b>
Number <b>Place Value</b>	5 weeks	Step 1 Sort objects Step 2 Count objects Step 3 Count objects from a larger group Step 4 Represent objects Step 5 Recognise numbers as words Step 6 Count on from any number Step 7 1 more Step 8 Count backwards within 10 Step 9 1 less Step 10 Compare groups by matching Step 11 Fewer, more, same Step 12 Less than, greater than, equal to Step 13 Compare numbers Step 14 Order objects and numbers Step 15 The number line	Pupils should be taught to: <ul style="list-style-type: none"> <li>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>• given a number, identify one more and one less</li> <li>• identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</li> <li>• read and write numbers from 1 to 20 in numerals and words.</li> </ul> <p><a href="#"><u>Eightness of Eight *</u></a></p> <p><a href="#"><u>Dotty Six *</u></a></p>	1NPV–1 Count within 100, forwards and backwards, starting with any number.  1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$  1NF–1 Develop fluency in addition and subtraction facts within 10.  1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers	0-100, More/less, digit, numeral, figures, in order, different order, size Value, between, halfway, above, below, ones, tens, column, represent, place value, beginning with 0, given number, one more, one less, dienes
Number <b>Addition and subtraction</b>	5 weeks	Step 1 Introduce parts and wholes Step 2 Part-whole model	Pupils should be taught to: <ul style="list-style-type: none"> <li>• read, write and interpret mathematical statements involving addition (+), subtraction</li> </ul>	1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers	Number bonds, number line add, more, plus, make, sum, total, altogether, plus inverse, double, near double, Equals, is

		<p>Step 3 Write number sentences</p> <p>Step 4 Fact families – addition facts</p> <p>Step 5 Number bonds within 10</p> <p>Step 6 Systematic number bonds within 10</p> <p>Step 7 Number bonds to 10</p> <p>Step 8 Addition – add together</p> <p>Step 9 Addition – add more</p> <p>Step 10 Addition problems</p> <p>Step 11 Find a part</p> <p>Step 12 Subtraction – find a part</p> <p>Step 13 Fact families – the eight facts</p> <p>Step 14 Subtraction – take away/cross out (How many left?)</p> <p>Step 15 Take away (How many left?)</p> <p>Step 16 Subtraction on a number line</p> <p>Step 17 Add or subtract 1 or 2</p>	<p>(–) and equals (=) signs</p> <ul style="list-style-type: none"> <li>• represent and use number bonds and related subtraction facts within 20</li> <li>• add and subtract one-digit and two-digit numbers to 20, including zero</li> <li>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math>.</li> </ul> <p><a href="#"><u>Pairs of Numbers</u></a> *</p>	<p>1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.</p>	<p>the same as, equals sign, find the difference, difference between, how many more make? How many more/fewer is...than...? How much more is...? Subtract, takeaway, Fewer, less count on, count back part-whole model</p>
<p>Geometry</p> <p><b>Shape</b></p>	<p>1 week</p>	<p>Step 1 Recognise and name 3-D shapes</p> <p>Step 2 Sort 3-D shapes</p> <p>Step 3 Recognise and name 2-D shapes</p> <p>Step 4 Sort 2-D shapes</p> <p>Step 5 Patterns with 2-D and 3-D shapes</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• recognise and name common 2-D and 3-D shapes, including:</li> <li>• 2-D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> </ul> <p><a href="#"><u>Jig Shapes</u></a> *</p>	<p>1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</p> <p>1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating</p>	<p>Position, over, underneath, below, top, side, bottom, in, outside, inside, around, front, back, before, after, beside, opposite, apart, middle, journey, left, right, up, down, forwards, backwards, roll, turn, stretch, Group, sort, cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square,</p>

				shapes to place them in particular orientations.	shape, flat, curved, straight, round, hollow, solid, edge, centre, corner, rotated, vertex, vertices, apex, faces
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## Spring

Topic	Suggested teaching weeks	White Rose Small Steps	Link to National Curriculum and NRIC Problem Solving	Link to Ready to Progress documents	Vocabulary
Number <b>Place Value</b>	3 weeks	Step 1 Count within 20 Step 2 Understand 10 Step 3 Understand 11, 12 and 13 Step 4 Understand 14, 15 and 16 Step 5 Understand 17, 18 and 19 Step 6 Understand 20 Step 7 1 more and 1 less Step 8 The number line to 20 Step 9 Use a number line to 20 Step 10 Estimate on a number line to 20 Step 11 Compare numbers to 20 Step 12 Order numbers to 20	Pupils should be taught to: <ul style="list-style-type: none"> <li>▪ count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>▪ given a number, identify one more and one less</li> <li>▪ identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</li> <li>▪ read and write numbers from 1 to 20 in numerals and words.</li> </ul>	1NPV–1 Count within 100, forwards and backwards, starting with any number.  1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$  1NF–1 Develop fluency in addition and subtraction facts within 10.  1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers	0-100, More/less, digit, numeral, figures, in order, different order, size Value, between, halfway, above, below, ones, tens, column, represent, place value, beginning with 0, given number, one more, one less, dienes
Number <b>Addition and subtraction (within 20)</b>	3 weeks	Step 1 Add by counting on within 20 Step 2 Add ones using number bonds Step 3 Find and make number bonds to 20 Step 4 Doubles Step 5 Near doubles Step 6 Subtract ones using number bonds Step 7 Subtraction – counting back	Pupils should be taught to: <ul style="list-style-type: none"> <li>▪ read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs</li> <li>▪ represent and use number bonds and related subtraction facts within 20</li> <li>▪ add and subtract one-digit and two-digit numbers to 20, including zero</li> </ul>	1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers  1AS–2 Read, write and interpret equations containing addition ( + ), subtraction ( – ) and equals ( = ) symbols, and relate additive expressions and equations to real-life contexts.	Number bonds, number line add, more, plus, make, sum, total, altogether, plus inverse, double, near double, Equals, is the same as, equals sign, find the difference, difference between, how many more make? How many more/fewer is...than...? How much more is...? Subtract, takeaway,

		<p>Step 8 Subtraction – finding the difference</p> <p>Step 9 Related facts</p> <p>Step 10 Missing number problems</p> <p><b><u>What Could It Be? *</u></b></p>	<ul style="list-style-type: none"> <li>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = - 9</math>.</li> </ul>		<p>Fewer, less count on, count back part-whole model</p>
<p>Number</p> <p><b>Place Value</b></p>	<p>2 weeks</p>	<p>Step 1 Count from 20 to 50</p> <p>Step 2 20, 30, 40 and 50</p> <p>Step 3 Count by making groups of tens</p> <p>Step 4 Groups of tens and ones</p> <p>Step 5 Partition into tens and ones</p> <p>Step 6 The number line to 50</p> <p>Step 7 Estimate on a number line to 50</p> <p>Step 8 1 more, 1 less</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> <li>• 2-D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> </ul> </li> </ul>	<p>1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</p> <p>1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.</p>	<p>0-100, More/less, digit, numeral, figures, in order, different order, size Value, between, halfway, above, below, ones, tens, column, represent, place value, beginning with 0, given number, one more, one less, dienes</p>
<p>Measurement</p> <p><b>Length and height</b></p>	<p>2 weeks</p>	<p>Step 1 Compare lengths and heights</p> <p>Step 2 Measure length using objects</p> <p>Step 3 Measure length in centimetres</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• compare, describe and solve practical problems for: <ul style="list-style-type: none"> <li>• lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>• mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>• capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> <li>• time [for example, quicker, slower, earlier, later]</li> <li>• measure and begin to record the following: <ul style="list-style-type: none"> <li>• lengths and heights</li> </ul> </li> </ul> </li> </ul>		<p>Length, height, mass, weight, capacity, Full, half full, empty, holds, container, weigh, weighs, balances, heavy, heavier, heaviest, light, lighter, lightest, scales,</p>

			<ul style="list-style-type: none"> <li>▪ mass/weight</li> <li>▪ capacity and volume</li> <li>▪ time (hours, minutes, seconds)</li> <li>▪ recognise and know the value of different denominations of coins and notes</li> </ul>		
Measurement <b>Mass and volume</b>	2 weeks	Step 1 Heavier and lighter Step 2 Measure mass Step 3 Compare mass Step 4 Full and empty Step 5 Compare volume Step 6 Measure capacity Step 7 Compare capacity	Compare, describe and solve practical problems for: <ul style="list-style-type: none"> <li>▪ mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>▪ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> </ul>		Mass, weigh, weighs, balances, heavy, heavier, heaviest, light, lighter, lightest, scales,

<b>Summer</b>					
<b>Topic</b>	<b>Suggested teaching weeks</b>	<b>White Rose Small Steps</b>	<b>Link to National Curriculum and NRICH Problem Solving</b>	<b>Link to Ready to Progress documents</b>	<b>Vocabulary</b>
Number <b>Multiplication and division</b>	3	Step 1 Count in 2s Step 2 Count in 10s Step 3 Count in 5s Step 4 Recognise equal groups Step 5 Add equal groups Step 6 Make arrays Step 7 Make doubles Step 8 Make equal groups – grouping Step 9 Make equal groups – sharing	<ul style="list-style-type: none"> <li>• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li> </ul>	1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	Odd, even count in twos, threes, fives, count in tens, forwards, backwards, how many times?, lots of, groups of, Once, twice, three times, five times, share, share equally, group in pairs, threes, etc, equal groups of, divide, divided by, left, left over, repeated subtraction, divide by, groups of
Number <b>Fractions</b>	2	Step 1 Recognise a half of an object or a shape Step 2 Find a half of an object or a shape Step 3 Recognise a half of a quantity Step 4 Find a half of a quantity Step 5 Recognise a quarter of an object or a shape Step 6 Find a quarter of an object or a shape Step 7 Recognise a quarter of a quantity Step 8 Find a quarter of a quantity S	<ul style="list-style-type: none"> <li>• recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>• recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</li> </ul>		Whole, equal parts, four equal parts, one half, two halves, equal, a quarter, quarters, pictorial representation of...
Geometry <b>Position and direction</b>	1	Step 1 Describe turns Step 2 Describe position – left and right Step 3 Describe position – forwards and backwards	<ul style="list-style-type: none"> <li>• describe position, direction and movement, including whole, half, quarter and three-quarter turns.</li> </ul>	1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	whole turn, half turn, left turn, right turn, quarter turn, right, left, forwards, backwards, above, below ,first, second etc.

		Step 4 Describe position – above and below Step 5 Ordinal numbers			
Number <b>Place value</b> (within 100)	2	Step 1 Count from 50 to 100 Step 2 Tens to 100 Step 3 Partition into tens and ones Step 4 The number line to 100 Step 5 1 more, 1 less Step 6 Compare numbers with the same number of tens Step 7 Compare any two numbers S	<ul style="list-style-type: none"> <li>▪ count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>▪ count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>▪ given a number, identify one more and one less</li> <li>▪ identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</li> </ul>	1NPV–1 Count within 100, forwards and backwards, starting with any number.	0-100, More/less, digit, numeral, figures, in order, different order, size Value, between, halfway, above, below, ones, tens, column, represent, place value, beginning with 0, given number, one more, one less, dienes
Measurement <b>Money</b>	1	Step 1 Unitising Step 2 Recognise coins Step 3 Recognise notes Step 4 Count in coins	<ul style="list-style-type: none"> <li>▪ recognise and know the value of different denominations of coins and notes</li> </ul>		Names of coins and notes, pounds, pence, money, change, total.
Measurement <b>Time</b>	2	Step 1 Before and after Step 2 Days of the week Step 3 Months of the year Step 4 Hours, minutes and seconds Step 5 Tell the time to the hour Step 6 Tell the time to the half hour	<ul style="list-style-type: none"> <li>▪ sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <li>▪ recognise and use language relating to dates, including days of the week, weeks, months and years</li> <li>▪ tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</li> </ul>		Time, days of the week, seasons, day, week, month, year, weekend, birthday, holiday, morning, afternoon, evening, night,