EYFS Maths

Long Term Plan

Maths in Reception
Our teaching of maths in reception is based on the White Rose curriculum and supplemented through the Mastering Number programme. Maths is taught through daily, adult-led focused tasks and enhanced provision areas. Children are given regular opporutnities for guided practice and to use and apply their mathematical knowledge through the provision areas. Our aim to ensure that maths is accessible to all pupils and they leave reception with a solid understanding of the Early Leaning Goals (ELGs)

Early Learning Goals
<u>Number</u> Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. <u>Numerical Patterns</u> Verbally count beyond 20, recognising the pattern of the counting system; Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

White Rose Maths: EYFS					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Count objects, actions, and sounds. Subitise Matching. Sorting & Comparing Comparing amounts Comparing size, mass & capacity Exploring pattern.	Represent, compare and explore the composition of numbers to 5 Subitise Understand the difference between circles, triangles and 4-sided shapes. Use positional language Find one more and one less	Subitise Begin to understand time: Night and day Compare numbers to 5 Composition of 4 and 5 Compare mass and capacity Composition of 6, 7 and 8 Make pairs Combine 2 groups	Subitise Length and Height Time Composition of 9 and 10 Compare numbers to 10 Number bonds to 10	Subitise 3D shapes Patterns Build numbers beyond 10 Count patterns beyond 10 Spatial reasoning Adding more	Subitise Taking away Doubling Sharing and grouping Even and odd Spatial reasoning Deepening understanding Patterns and relationships

Mastering Number: EYFS					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Subitise 3 and 4 - Counting sequences/ -1 correspondence - Composotion of number 4 - All numbers are made of 1s - Compare sets by looking and language more than/fewer than	- Subitise 5 - Explore cardinality of 5 - Begin to count beyond 5 - Explore concept of wholes and parts - Composition of 5 - Compare sets by looking/subitising and matching	- Subitise 5 cont. - Explore patterns of number beyond 5 - Develop verbal counting, 20 and beyond - Use fingers to represent quanitites between 5-10 - Composition of 5/ hidden/missing parts - Compare sets and explore equal/unequal	-Explore un/symmetrical patterns - Consolidate cardinality within 10 - Familiarise pattern to 20 - Explore composition of odd and even numbers - Even numbers/doubles - Composition of numbers within 10 - Reason with 'howmanyness' of numbers	-Subitise numbers in different patterns - Subitise structured/unstructured within 10 - Apporpirate to count/subitise - Develop verbal counting, 20 and beyond - Composition of 10 - Order sets of objects - Understand ordinal system	Consolidation of all concepts with a variety of contexts

Progression in Maths: Nursery to Year 1

	Nursery	EYFS	Year 1 (Autumn Term)
Number (Subitising, counting, cardinality, ordinality)	Subitise within 3 • Recite numbers beyond 5 (abstract) • Say one number for each item in order, e.g 1, 2, 3 • Know the last number reached in a group is the total • Link numeral and amounts	Subitise numbers to 5 (explore structured and unstructured subitising within 10) • Count verbally to 20 and beyond… • Represent the cardinality of numbers within 10 and beyond (teen numbers) • Understand concept of one more/less	count to and across 100, forwards and backwards from any given number • count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s • given a number, identify 1 more and 1 less • identify and represent numbers using objects and pictorial representations and use the language of: equal to, more/less than • read and write numbers from 1 to 20 in numerals and words
Number (composition and comparison)	Discuss verbally numbers inside numbers e.g "I am 3. 2 and 1 are a part of me" • Compare quantities e.g more than/fewer than	• Explore concept of wholes and parts • Composition of numbers to 5 and then within and to 10 (bonds) • Explore composition of odd and even numbers • Understand composition through doubles • Explore composition through hidden/missing parts • Reason around 'howmanyness' of numbers • Compare/order numbers using language equal/unequal/smallest/greatest	• read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract 1 and 2-digit numbers to 20, including 0 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9 Number: Multiplication, Division and Fractions
Geometry (Patterns, colour, sorting)	• Recognise and name colours (matching) • Sorting objects by attributes e.g colour, size, shape • Recognise and follow an AB pattern e.g red, blue, red… • Correct ABAB pattern	• Continue, copy and create repeated patterns (AB, ABB, ABBC) • To match and sort objects in various ways e.g pairs, colour, shape, sharing, equal, • Compose and decompose shapes, identifying new shapes made and shapes within shapes	Geometry/Position & Direction Recognise and name common 2D/3D shapes inc triangle, circle, square, cube, cuboid etc • Patterns with 2D & 3D shapes (ABBCBBA) • describe position, direction and movement, including whole, half, quarter and three-quarter turns
Shape & Space (shapes, positional language)	Explore 2D and 3D shape using informal language e.g corners, curved, round, straight • Ordering events in the day e.g next, after, before • Understand position through words e.g below, under, down • Select shapes appropriately for building e.g flat top	• Name some 2D shapes e.g circle, triangle, square and rectangle and describe basic properties • Explore 3D shape • Select, rotate and manipulate shapes to develop spatial reasoning skills • Compose and decompose shapes • Continue to develop positional language, creating own stories/journeys	Measurement • compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half].. mass/weight [for example, heavy/light, heavier than, lighter than]…capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • measure and begin to record the following: lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) recognise and know the value of different denominations of coins and notes
Measurement (Weight, capacity, length & height)	• Explore language around size e.g big/little/smaller/bigger • Compare length and height using language taller, shorter • Identify items that may be heavy, make links between 'seesaw' balance scales • Explore capacity using language full, half full, empty	Explore language around length, height and breadth (indirect comparisons using blocks) • Compare and order objects of different size, mass and capacity using increasingly more complex language • Begin to measure time in simple ways e.g how many sleeps • Sequence events in the day, describe events that have happened or that they are looking forward to	• Recognise and use language relating to dates, weeks months etc • Sequence events in chronological order using before, after language and solve problems using language such as quicker/slower • Read the clock to the o'clock and half past the hour and draw hands on the clock face to show these times

Maths Long Term Plan: Year 1 – Year 6

Maths: Year 1 – Year 6
Our teaching of maths in Year 1 – Year 6 is based on White Rose Maths. We supplement this with the NCETM spine materials, which break the national curriculum objectives down into smaller steps. Our medium term plans are all linked to the NCETM Ready to Progress materials. In addition to this, Year 1 and 2 use the Mastering Number programme which is aimed at strengthening the understanding of number, and fluency within number facts. From September 2023, year 3 and 4 will also be trialling this programme.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Place value Addition and subtraction (within 10)	Addition and subtraction (within 10) Shape	Place value (within 20) Addition and subtraction (within 20)	Place value (within 50) Length and height Mass and Volume	Multiplication and division Fractions Position and direction	Place value (within 100) Money Time
Year 2	Place value Addition and subtraction	Addition and subtraction Shape	Money Multiplication and division	Fractions Mass, capacity and temperature	Length and height Time	Statistics Position and direction
# Year 3	Place value Addition and subtraction	Addition and subtraction Multiplication and division A	Multiplication and division B Length and perimeter	Fractions A Mass and capacity	Fractions B Money	Time Shape Statistics
Year 4	Place value Addition and subtraction	Addition and subtraction Area Multiplication and division A	Multiplication and division B Length and perimeter	Fractions Decimals A	Decimals B Money Time	Shape Statistics Position and direction
Year 5	Place value Addition and subtraction Multiplication and division A	Multiplication and division A Fractions A	Multiplication and division B Fractions B Decimals and percentages	Decimals and percentages Perimeter and area Statistics	Shape Position and direction Decimals	Decimals Negative numbers Converting units Volume
Year 6	Place value Addition, subtraction, multiplication and division	Fractions A Fractions B Converting units	Ratio Algebra Decimals	Fractions, decimals and percentages Area, perimeter and volume Statistics	Shape Position and direction	Themed projects, consolidation and problem solving

Mastering Number: Year 1

Autumn	Spring	Summer
• subitise within 5, including when using a rekenrek, and re-cap the composition of 5 • develop their understanding of the numbers 6 to 9 using the '5 and a bit' structure • compare numbers within 10 and use precise mathematical language when doing so • re-cap the order of numbers within 10 and connect this to '1 more' and '1 less' than a given number • explore the structure of even numbers (including that even numbers can be composed by doubling any number, and can be composed of 2s) • explore the structure of the odd numbers as being composed of 2s and 1 more • explore the composition of each of the numbers 6, 8, and 10 • explore number tracks and number lines and identify the differences between them	• explore the composition of each of the numbers 7 and 9 • explore the composition of odd and even numbers, seeing that even numbers can be made of two odd or two even parts, and that odd numbers can be composed of one odd part and one even part • identify the number that is two more or two less than a given odd or even number, identifying that two more/ less than an odd number is the next/ previous odd number, and two more/ less than an even number is the next/ previous even number • explore the aggregation and partitioning structures of addition and subtraction through systematically partitioning and re-combining numbers within 10 and connecting this to the part-part-whole diagram, including using the language of parts and wholes • explore the augmentation and reduction structures of addition and reduction using number stories, including introducing the 'first, then, now' language structure	• explore the composition of the numbers 11 to 19 as '10 and a bit' and compare numbers within 20 • connect the composition of the numbers 11 to 19 to their position in the linear number system, including identifying the midpoints of 5, 10 and 15 • compare numbers within 20 • understand how addition and subtraction equations can represent previously explored structures of addition and subtraction (aggregation/ partitioning/ augmentation/ reduction) • practise retrieving previously taught facts and reason about these
This term will build and consolidate the Early Learning Goals and support the teaching and consolidation of the following RtP criteria: • 1AS-1 • 1NF-1 • 1NPV-2	This term will particularly support the teaching and consolidation of the following RtP criteria: • 1AS-1 • 1NF-1	This term will particularly support the teaching and consolidation of the following RtP criteria: 1AS-2 1NF-1 1NPV-2

Mastering Number: Year 2

Autumn	Spring	Summer
• review the composition of the numbers 6 to 9 as '5 and a bit' • compare numbers using the language of comparison and use the symbols < > = • review the structure of even numbers (including exploring how even numbers can be composed of two odd parts or two even parts) and the composition of each of 6, 8 and 10 • review the structure of odd numbers (including exploring how odd numbers can be composed of one odd part and one even part) and the composition of each of 7 and 9 • consolidate their understanding of the numbers 10 and 20 as '10 and a bit' • consolidate their understanding of the linear number system to 20 and reason about midpoints	• explore how the numbers 6 to 9 can be doubled using the '5 and a bit' and '10 and a bit' structure • use doubles to calculate near doubles • use bonds of 10 to reason about bonds of 20, in which the given addend is greater than 10 • use known number bonds within 10 to calculate within 20, working within the 10-boundary • use their knowledge of bonds of 10 to find three addends that sum to 10 • use their knowledge of the composition of numbers within 20 to add and subtract across the 10-boundary • use their understanding of the linear number system to 10 to position multiples of 10 on a 0 - 100 number line and reason about midpoints	• continue to explore a range of strategies to subtract across the 10-boundary • review bonds of 20 in which the given addend is greater than 10, and reason about bonds of 20, in which the given addend is less than 10 • practise previously explored strategies to support their reasoning about inequalities and equations • review doubles and near doubles and transform additions in which two addends are adjacent odd/ even numbers into doubles • consolidate previously taught facts and strategies through continued, varied practice
This term will particularly support the teaching and consolidation of the following RtP criteria: • 1NPV-2 • 2NF-1	This term will particularly support the teaching and consolidation of the following RtP criteria: • 2NPV-2 • 2NF-1 • 2AS-1	This term will particularly support the teaching and consolidation of the following RtP criteria: • 2NF-1 • 2AS-1 • 2AS-2

Times tables

At Ox Close we recognise the importance and ensuring that all children are secure with their times table facts by the end of year 4. We aim to provide opportunties for children to become secure in the quick recall of number facts, make connections and reason about number, in relation to multiplication.

In Year 1, pupils are taught to count in multiples of two, fives and tens.

Year 2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Count in multiples of two, fives and tens.	Count in steps of 10 from 0 and then any number. Recall multiplication facts for 10x table.	Count in steps of 2 and 10, from 0. Recall multiplication and division facts for 2x table and 10x table.	Count in 5s Recall multiplication and division facts for 2x table, 10x table and 5x table.	Count in 3s. Recall multiplication and division facts for 2x table, 10x table and 5x table.	Count in 3s. Recall multiplication and division facts for 2x table, 10x table and 5x table.

Year 3					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
10x table and associated division facts.	2x table and associated division facts. Recap of 10x table.	5x table and associated division facts. Recap of 10x and 2x table.	3x table and associated division facts. Recap of 5x table.	3x table and associated division facts. Recap of 10x, 2x and 5x table.	Recap of 10x, 2x, 5x and 3x table.

Year 4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Recap of 10x, 2x, 5x and 3x table. 4x table and associated division facts.	6x table and associated division facts. 8x table and associated division facts. 7x table and associated division facts. Recap of 10x, 2x, 5x, 3x and 4x table.	9x table and associated division facts. 11x table and associated division facts. 12x table and associated division facts. Recap of all other tables learnt.	Recap of all tables.	Recap of all tables.	Recap of all tables. Multiplication check: June

Pupils in Year 5 and Year 6 will continue to practise all times tables regularly and will look at deepening understanding through looking at patterns and making connections.