Maths Progression Overview

Baseline - Oct **Check point 1 - December** **Check Point 2 – March** **Check Point 3 – May** **EYFSP – June**

Intent Our children will leave EYFS at Dundry Primary having had many opportunities to develop their understanding of number (including the composition of numbers, number bonds and subitising), numerical patterns (including odds and evens and doubling), measurement, shape and space in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about numbers and shapes. We encourage pupils to understand and respond to the symbols that represent numbers and what this means in real contexts. We support children in understanding what an important role shapes and numbers play in our everyday lives and how they develop our own understanding and help us to solve problems. We approach this area by fostering a love of number and the enjoyment of solving problems

Implementation In Reception our teaching of Maths reflects the Number Sense and White Rose Maths schemes. These are used as a planning tool, but we adapt according to the needs of our children. Pupils explore maths, using mathematical vocabulary to reason and explain their findings. Children take part in a fifteen minute whole class number activity everyday, sometimes experiencing a slightly longer maths session where a particular concept or element is introduced or explored in more detail. Math's skills are integral to our daily routine and activities e.g counting during the register, when lining up, shape hunts, shape language etc. Throughout EYFS we create a rich environment, where talk for maths is a key learning tool for all pupils. There are opportunities for our children to explore and develop their mathematics throughout our learning environment, inside and outside. Adults are skilled at encouraging mathematical opportunities through children's play and will challenge where this is a focus for the child's next step

Impact All children are expected to success and make outstanding progress from their starting points. They are competent with the skills of subitizing and have developed number sense skills. Pupils can talk about number and explain what it is and isn't. They solve problems and make predictions about what might happen while using appropriate vocabulary. Our pupils apply their mathematical skills in a variety of contexts. They have a positive mind set about maths and making 'mistakes'.

Below shows the progression of skills that build towards the Maths ELG.

A more detailed NCETM progression document of the 6 key areas of maths can be found here

Maths Progression Overview

Baseline - Oct Check point 1 - December Check Point 2 – March Check Point 3 – May EYFSP – June

Maths

Big Ideas	Area of Maths: Numbers	Area of Maths: Numerical Patterns	Area of Maths: Shape, Space and Measure
Preschool & Baseline (Oct)	--Begins to subitise one or two objects -Counts up to five items, recognising that the last number said represents the total counted so far -Links numerals with amounts up to 5 -Ascribe mathematical meanings to their mark making -Use number to solve practical problems in play -When counting recognises each number is 1 more or 1 less	-Begins to recite numbers to 10 - Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same	-Creates their own spatial patterns showing some organisation or regularity -Explores and adds to patterns of two or three repeats -Join in with simple patterns in sounds predicting what comes next - Follow prepositional instructions through games and songs like Simon says, Hokey Cokey,
YR CP1 (Dec)	-Begin to Subitise 1 to 3 items. -Represent 1 – 5 in a variety of ways e.g. on fingers, on a fives or tens frame, with objects, with numicon, cubes, digits, tally, a picture, dots on dice, money. -Some exposure to number doubles e.g through Numberblocks, one and another one makes two. -Begin to explain the composition of numbers (numbers within numbers) with support of visual aids such as tens frames, cubes, objects and Numberblock characters. -Begin to recognise parts within numbers. E.g. Look at 4 buttons and say “I can see a group of 2 and another group of 2” -Begin to use a 5 frame model.	-Join in with number songs, attempting to represent numbers using fingers where appropriate. -Recite numbers to 10 or beyond. -Demonstrate understanding that we use one number for each item, when counting. -Attempt to count objects, actions and sounds to 10 accurately. -Use and understand the term “more” in practical contexts. -Begin to link each number to 5 with its cardinal number value. -Know that the last number reached when counting is the total. -Begin to understand the concept of 1 more and 1 less with concrete objects to 5. -Order numbers 1-5	-Describe the size or shape of real-life objects using simple mathematical vocabulary, e.g. big/little, large/small round/straight. -Time - understand first/next -Time-able to talk about the passing of time through own experiences. -Sorting/matching - sort groups of objects according to different criteria e.g by colour, size and shape -Pattern- Begin to continue, copy and create AB patterns -Shape- Select, rotate and manipulate shapes to develop spatial reasoning skills through learning through play -Follow prepositional instructions through games and songs like Simon says, Hokey Cokey, Where’s the bear? -Name 2D shapes and explain their properties using mathematical language e.g sides, corners

YR CP2 (March)	-Subitise to 4. -Begin to subitise amounts on a dice and on a tens frame. -Represent 5-10 in a variety of ways e.g. on fingers, on a fives or tens frame, with objects, with numicon, cubes, digits, tally, a picture, dots on dice, money. -Discuss composition of numbers to 10, showing some automatic recall of number facts. E.g I can make 6 with 3 + 3 or 4 + 2 -Partition amounts into equal groups. -Double numbers 1-10 using concrete objects. -Use a tens frame model to represent numbers to 10 and some addition and subtraction sums, with support. -Begin to recall number bonds to 5 and some corresponding subtraction facts. -Use a part, whole model with concreate objects to partition and recombine an amount. -Combine 2 groups of concrete objects	-To make representations of number rhymes. Show me 5 current buns, but 1 is taken away. -Recite numbers to 20 confidently. -Confidently count back from 10. -Begin to count back from 20 with support and visual aid such as a number line. -Order numbers to 10 -Demonstrate understanding of the cardinal principle when counting objects. Show accuracy when counting a group of up to 5/10 objects. -Begin to compare numbers and quantities up to 10 using and understanding the terms more than, greater than, fewer, less than in practical contexts. -Understand the term equal when comparing two groups of objects. -Begin to understand the concept of 1 more and 1 less using a number line, to 10. -Begin to count in 2s with support.	-Time - Understand yesterday/today/tomorrow. -Time-Recite days of the week and months of the year. -Shape - Identify straight and curved sides on 2D shapes, and flat and curved faces on 3D shape -Shape- Use shapes to make pictures/models. -Measure - use and understand the terms shorter/taller, larger/smaller. Sequence 4 items according to these criteria. -Measure- measure and compare length using non-standard measures -Pattern- Continue, copy and create AB, ABB and ABBC patterns -Money- Begin to recognise some coins and their value. Count 1p coins in 1s and 2p coins in jumps of 2 with support. -Able to complete jigsaw puzzles independently. -Begin to use and understand prepositional language such as in front of, behind of.

YR CP3 (May)	-Confidently subitise rather than count small groups of objects. -Subitise to 5 using familiar concept images (e.g. a tens frame, with Numicon, on a dice, and using fingers -Double numbers 1-5 confidently and begin to recall some double facts from memory. -Add 2 single digit numbers using known number facts or number line. -Write addition and subtraction number sentences. -Recall number bonds to 5 automatically and some number bonds to 10.	-Recite numbers to 20 and back from 20. -Count on from a given number to 20 and back from a given number 0 - 10. -Recognise numbers 1-20 and out of order. -Show accuracy when counting a group of objects, showing 1 to 1 correspondence & confident application of the cardinal principle. -Say the number one more/less than a given number 1 - 10. -Explore sharing into equal groups in practical contexts, commenting on what they notice. -To begin to work out 1 more/1 less than a number up to 20 using a preferred method: mentally, using objects or on a number line. -Exposed to counting in 5s and 10s, with support.	-Demonstrate understanding of everyday prepositions - in, on, under, beside, in front, behind. -Time - Use and understand before/after -Time- Have an understanding of what the day and the month is -Shape - Select, rotate and manipulate shapes to match a picture, fit an outline or create patterns. -Shape- Name some 3D shapes and describe their properties using mathematical language. -Pattern - continue a simple AB, ABC pattern -Measure- Use Mathematical language when comparing length, weight and capacity. -Follow prepositional language e.g. put Teddy inside the box.
ELG	**ELG:** -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	**ELG:** -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	**ELG: NO ELG FOR THIS AREA** -Use everyday language to discuss length, size, height, weight, time, position and capacity. Use this language to make simple observations, e.g. this is heavier than that. -Shape - Understand and use correct mathematical language to describe 2D and 3D shapes (e.g. vertices, sides, edges, faces, flat/curved). -Shape - Know some common 2D and 3D shapes. -Pattern - create, copy and continue a simple patten
	Provision Counters, 5 and 10 frames, multilink, Numicon, Numbersense, flashcards, numberlines and 100 squares, supporting books (eg One is a Snail) dominoes, dice, number pebbles, games and puzzles,		**Provision** 2D and 3D shapes, jigsaws, small construction, Numicon, measuring equipment, peg boards, tessellating shapes, timers, clocks, stopwatches, coins, role play, supporting books