



Ettington Primary School EYFS Progression Document

Maths



Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Knowledge		Skills
Know a group of objects can be sorted in different ways. Know that there are similarities between objects in the same set and differences between sets. Know that objects can be matched by colour, shape, size, pattern. Know you need a rule to sort a set of objects. Know subitise means to look, think and say how many you can see in a set. Know five frames and 10 frames can be used to accurately count. Know the five Counting Principles Know Same/Different Know that patterns are repeated, continued and follow a sequence Know that symbols represent quantities and operations.	Know that numbers can be represented by objects, pictures, sounds, movements. Know numbers can have 1 digit, 2 digits, 3 digits etc. Know a whole number is built from smaller parts and can be partitioned back into its smaller parts. Know a whole number can be made in different ways Know addition make an amount larger Know subtraction make an amount smaller Know when you count up/down the number increases/decreases by 1. Know some numbers are odd and others are even Know that double means to add the same number again. Know mathematical vocabulary Know the order of numbers in the counting system	Compare, recognise, make, explain, notice, identify, create, sort, use, count, subitise, link, find, show, explore, partition, combine, write, record, separate, recall, add, subtract, copy, continue, describe, name, predict, build, correct, pair, halve, match, double, share, respond, move, rotate, investigate, select, measure, order, sequence.

Characteristics of effective learning that are relevant

Playing and Exploring • Communicate my interests • Act out my experiences with others • Use my experiences in my play • Try new things • Take risks • Tackle tasks that might be difficult. • Explore and investigate	Active Learning • Notice something in more detail • Persevere • Be resilient • Talk about how I feel when I've achieved something • Talk about when I feel proud	Creating and Thinking Critically • Think of my own ideas • Make decisions • Talk about problems I encounter and how to solve them. • Talk about my thinking and ideas. • Change my approach where necessary
---	--	---

Early Learning Goals

Number 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.	Numerical Patterns 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.
---	--

Maths Number								
2-3 year olds			Pre-school (3-4 year olds)			Reception (4-5 year olds)		
Autumn	Spring	Summer	Autumn	Spring	Summer	Autumn	Spring	Summer
- Enjoys exploring numbers through songs, stories and everyday play. - Develops early mathematical understanding through practical, hands-on experiences. (building blocks)	- Begins to notice and talk about small quantities, saying words such as one, two and lots. - Talks about and explores early shapes ie, circle, square, triangle	- Noticing shapes in their environment - Recognises and begins to identify numerals in the environment and in play.	- Knows that number names have an order that stays the same each time (stable order). - Recites number names in order to 5, forwards. - Joins in with number rhymes and songs. - Knows that objects can be counted by saying one number for each item. - Attempts to count a small group of objects, though not always accurately. - Begins to see 1, 2 and 3 as a whole amount without counting (early subitising).	- Knows that the last number counted tells you how many there are altogether (cardinal principle, emerging). - Counts up to 3 objects accurately, matching one number name to one object. Counts up to 4 objects with growing accuracy. - Subitises small groups of 1 and 2 without counting. - Small groups of up to 3 can be recognised instantly, without counting. - Subitises groups of up to 3 in different arrangements.	- Groups of objects can be compared using more, fewer or the same. - Counts up to 5 objects with the cardinal principle secure most of the time. - Compares two small groups, using more, fewer or the same. - Counting tells us how many are in a group, and this stays the same amount however the objects are arranged. - Counts up to 5 objects accurately, applying the cardinal principle. - Subitises groups of up to 3 confidently, and begins to subitise 4 and 5.	- Knows that numbers can be compared using "more" and "fewer". - Knows that counting requires one-to-one correspondence. - Knows that numbers can be shown in different ways (fingers, objects, pictures). - Knows that Numbers have a name and an order -forwards and backwards. - Understands that small groups of objects (up to 3) can be recognised without counting (perceptual subitising). - Recites number names in sequence to 10 forwards and backwards. - Subitises groups of up to 3. - Sorts, matches and compares groups using mathematical language. - Numbers represent a quantity -the last number counted	- Knows that numbers can be composed and decomposed (e.g., $5 = 3+2$). - Knows that doubles are two equal amounts. - Knows that number bonds help show how numbers combine. - Knows that one more adds one to a group; one less takes one away. - Knows that numbers can be split into two or more groups (composition). - Knows that number bonds are pairs of numbers that make a total. - Demonstrates understanding of one more and one less. - Begins to partition small numbers (e.g. 4 is 3 and 1, or 2 and 2). - Explores number bonds to 5 through practical activities. - Subitises up to 5 in regular and random arrangements.	- Knows how to automatically recall number bonds to 5 and some to 10. - Knows how to compare quantities. - Knows how to understand and represent numbers to 10 in different ways. - Understands that groups can be shared equally or put into equal groups (grouping). - Understands that doubles are two equal groups of the same number. - Explores sharing into equal groups and grouping. - Begins to recall some number bonds to 5 without counting. - Counts to 20 and beyond with growing confidence. - Begins to recognise patterns in the counting system. - A deep understanding of numbers to 10 includes knowing how they can be

						tells you how many (cardinality). - Counts to 5 with 1:1 correspondence, matching numerals to quantities. - Begins to explore conservation of number. - Identifies which group has more, fewer or the same. - Begins to subitise groups up to 4 and 5, starting to see smaller groups within them.	- Numbers can be added together and subtracted. - Some numbers share equally into two groups (even); some cannot (odd). - Solves simple addition and subtraction problems using objects ('how many now?'). - Begins to explore odd and even numbers. - Counts to 10 confidently with 1:1 correspondence. - Begins to explore conservation of number to 10.	composed, compared and recalled. - Number bonds to 5 (and some to 10) can be recalled automatically. - Has a deep understanding of numbers to 10 including composition of each number. - Subitises up to 5 in regular and random arrangements. - Automatically recalls number bonds up to 5 (including subtraction facts) and some bonds to 10 including doubles.
--	--	--	--	--	--	--	---	---

Maths Numerical Patterns								
2-3 year olds			Pre-school (3-4 year olds)			Reception (4-5 year olds)		
Autumn	Spring	Summer	Autumn	Spring	Summer	Autumn	Spring	Summer
- Enjoys filling, emptying, stacking, posting, sorting and matching objects. - Explores objects and resources through repetitive actions.	- Sorts objects by simple characteristics, such as colour, shape or size, with adult support. - Matches objects and pictures that are the same. - Begins to recognise simple repeating patterns in their environment.	Copies simple repeating patterns using objects, sounds or movements.	- Knows that position words describe where something is. - Explores position through real movement (tunnels, obstacles) before using the words. - Begins to compare two objects by size, using bigger or smaller. - Knows that objects can be ordered by length or height. - Explores building and shape through construction play. - Orders two or three objects by length or height with support.	- Knows that objects can feel heavier or lighter than each other. - Compares two objects by weight, using hand-weighing before scales. - Notifies a simple repeating pattern while building, without yet copying it. - Knows that shapes can be sorted by how they look and feel. - Sorts shapes using their own criteria (rolls or doesn't roll) before formal names. - Copies a simple AB pattern with support (red-blue-red-blue).	- Knows that containers can be full, empty, or in between. - Explores filling and emptying containers, using full and empty vocabulary. - Uses and labels a 3D shape with a familiar name during play, e.g. box, ball. - Knows that position and shape language can be used to describe and build the world around us. - Uses positional language (on, under, next to) during play with growing confidence. - Explores and labels 2D shapes with emerging vocabulary, e.g. circle, square.	- Knows simple patterns (e.g., AB). - Knows that objects can be sorted by colour, size or shape. - Knows that patterns repeat. - Knows that shapes and objects can be ordered by size. - Knows that positional language describes where things are. - Knows that objects can be compared by size, weight and capacity. - Copies and extends simple repeating patterns using objects, sounds and actions. - Explores position and direction (on, under, next to, behind, in front of). - Begins to compare size, weight and capacity using mathematical language. - Uses time vocabulary in daily routines (morning, afternoon, today, tomorrow).	- Knows that patterns can be extended and created. - Knows how to compare length, weight and capacity using everyday language. - Explores mapping, directions and routes using directional language. - Compares size, weight and capacity using mathematical language in practical contexts. - Knows that 2D shapes have names and specific properties (sides, corners). - Explores and describes 2D shapes and their properties (circle, triangle, square, rectangle). - Measures using non-standard units, comparing and recording findings. - Explores even and odd numbers practically.	- Knows how to identify, continue and create repeating patterns. - Knows how to compare and describe length, weight and capacity using mathematical vocabulary. - Knows that 3D shapes have faces, edges and vertices. - Begins to explore and describe 3D shapes (sphere, cube, cuboid, cylinder). - Knows that quantities up to 10 can be compared in different contexts. - Understands that even numbers share equally into two groups; odd numbers cannot. - Compares quantities up to 10 in different contexts, recognising greater than, less than or the same. - Patterns within numbers (evens, odds, doubles,

						• Identifies and applies pattern rules to more complex patterns. • Creates own patterns with a clear repeating rule. • Uses time vocabulary to sequence events (before, after, next, yesterday, today).	• Counts beyond 10, recognising the repeating pattern of the counting system.	equal sharing) can be described. • Verbally counts beyond 20, recognising the pattern of the counting system. • Compares quantities up to 10 in different contexts. • Explores and represents patterns within numbers up to 10 including evens, odds, doubles and equal distribution.
--	--	--	--	--	--	---	---	--