EYFS Mathematics Overview

Early Learning Goals:

ELG: Number	ELG: Numerical Patterns
Children at the expected level of development will: • 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.	Children at the expected level of development will: • 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.

Assessing a Knowledge Rich Curriculum:

Skillse: Number	Skills: Numerical Patterns
Accurate counting skills of cardinality and subitising, MNP	Special reasoning, estimation, measure, weigh and compare and order. Talk about properties, position and time.
Knowledge: Number	**KNowledge: Number Patterns**
Know how to count objects, actions and sounds. Knows how to count accurately using the cardinal counting principle. Knows how to subitise using 5 frames and 10 frames, knows how to show a number on fingers without counting. Recognises a number of items when in an arrangement. Knows the number symbol (numeral) that links with its cardinal number value. Knows how to count beyond ten. Knows how to compare numbers using language of more/less. Knows the 'one more than/one less than' relationship between consecutive numbers. KNows how to explore the composition of numbers including partitioning and recombining sets. Knows number bonds for numbers 0-10.	Knows how to select, rotate and manipulate shapes to develop spatial reasoning skills. Know how to compose and decompose shapes knowing that shapes can have other shapes within them. Know that numbers are the same as shapes in this way. Knows how to continue, copy and create a repeating pattern. Knows how to compare length weight and capacity. Recall number bonds to ten.

What does it mean?

Mathematics for young children involves developing their own understanding of number, quantity, shape and space. Babies and young children have a natural interest in quantities and spatial relations – they are problem-solvers, pattern-spotters and sense-makers from birth. This curiosity and enjoyment should be nurtured through their interactions with people and the world around them, drawing on their personal and cultural knowledge. Children should freely explore how they represent their mathematical thinking through gesture, talk, manipulation of objects and their graphical signs and representations. Every young child is entitled to a strong mathematical foundation which is built through playful exploration, apprenticeship and meaning-making. Effective early mathematics education requires practitioners who: • observe, listen to, value and build on children's mathematical ideas and experiences (including with families); • include mathematics in interactions with children, drawing attention to mathematics in children's everyday lives; • help children seek patterns, make connections and recognise relationships; • support children of all ages in creating and solving mathematical problems; • ensure provision includes a rich blend of practical activities, stories, songs, rhymes, games and imaginative play as well as graphic tools; with plenty of time for children to revisit, develop and make sense for themselves; • maintain children's enthusiasm so children develop positive self-esteem as learners of mathematics and feel confident to express their ideas.

Possible Enrichment:

Daily opportunities for mathematical problem solving, counting the days of the week, preparing the snack, making playdough, cooking. Ten frame registration and noticing numbers in everyday routines. Everyday there will be a mathematical problem that we need to solve; weighing food for guinea pigs, measuring water for plants, counting the snack for the class etc. We will include Artists - Henri Matisse to explore shape work.

Resources:

Stimulating maths area within the classroom with objects for counting, sorting, weighing, measuring. Open ended resources to access for own investigations (tape measures, rulers, scales, number lines) Daily access to concrete resources, natural opportunities for talking/ investigating mathematically, problem solving and .

SMSC:

- Spiritual By making connections between pupils' numeracy skills and real life; for example, pie charts could compare how a child in Africa spends her day with how children in the UK spend their time. By considering pattern, order, symmetry and scale both man made and in the natural world.
- Moral By engaging pupils playfully; for example, in unequal shares of resources, why might someone be upset if they received less than other people? By reflecting on data that has moral and ethical implications; for example pupils might consider the difference in amounts of money spent on non-essentials compared with food aid / wateraid.
- Social By the sharing of resources within the classroom, the negotiating of responses and group problem solving By analysing social data e.g. on health care, poverty, bullying.
- Cultural by using a range of cultural resources in maths.

British Values

- **Democracy** within the early years this is all about making decisions together. We support children to understand that their views count and they should express them. We value each others feelings and talk about how we feel.
- **Rule of law** is about understanding rules, managing children's feelings and behaviour. To help this, we help them understand right from wrong, making sure that we have a clear behaviour management system with rewards.
- Tolerance of other religions. We create an environment that is inclusive, respecting, views, faiths, cultures and races. We engage with the wider community. Actively involved with parents, grandparents, and cultural celebrations.
- To promote mutual respect we promote sharing and respecting opinions. Creating an ethos of inclusivity and tolerance where views and cultures are valued and children are engaged with the wider community.
- **Individual Liberty** – children have freedom for all, focusing on people, communities, self-confidence and awareness. Children need to have a positive sense