**Mathematical Development within EYFS at Scorton Primary School**

**Statutory Framework for Mathematics**

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.

**Intent**

Mathematics is a Specific Area in the Early Years Foundation Stage Curriculum. We know that young children follow a natural developmental process when learning mathematical concepts and ideas. Our sequence of learning supports this and ensures that children experience a broad and balanced delivery of mathematical approaches and ideas. Mathematics is everywhere! We believe mathematics in the early years should be real ,hands-on and multisensory. Children develop their mathematical thinking when they can touch, feel and weigh concrete resources. The learning environment is full of awe inspiring, authentic resources, such as sparkling jewels to collect, huge pumpkins to transport and beautiful autumn resources to sort and make patterns with. We aim to empower our children to believe that maths is fun and that they are able to be capable and confident mathematicians. Likewise we support parents and carers to believe in their own abilities as we support them to understand what maths looks like in the early years.

**Progression of Knowledge and Skills**

| | **Number, Pattern, Shape, Space and Measure** |
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| Nursery | ·Children say numbers spontaneously through play but without real meaning<br>Children are curious about numbers in the environment<br>·Children recognise 'how many' instantlly when looking at a small group of objects, e.g. 'one nose', 'two eyes'<br>Talks about and identify patterns around them – stripes, spots.<br>Use informal language like pointy, spotty, blobs<br>Extend and create an ABAB pattern<br>Talk about and explore 2d and 3d shapes using informal language 'round', 'flat', 'corners'<br>Select shapes appropriately e.g. triangular prism for a roof, flat surfaces for building etc<br>Understand position through words alone – under the table<br>Make comparisons between objects relating to size, weight, capacity and length e.g. 'this is bigger' |

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| Pre School E | I can...<br>•Notice and talk about patterns<br>•Count forwards<br>•Recognise some numerals.<br>•Sort objects<br>•Compare objects by size, shape and quantity.<br>•Count with support<br>•Subitise with support<br>•Use shapes within play.<br>•Copy a simple pattern<br>•Recognise when two amounts are the same<br>•Recognise numerals 0-3.<br>•Count a set of objects using 1:1 correspondence.<br>•Use number names in rhymes and songs<br>•Recognise similarities and difference between shapes. |
| Pre Schoo D | I can...<br>•Compare amounts<br>•Know that amounts will change if things are added or taken away<br>•Use number names to identify how many<br>•Subitise to 3<br>•Know that when I am counting, the last number I say is always the total.<br>Use shapes within play<br>•Continue a simple pattern<br>•Recognise when there is more or fewer in a group recognise 0-5.<br>•Count an irreguar arrangement of objects.<br>•Find the correct shape to complete a picture or structure e.g. circle for a face. |
| Pre- School S | I can...<br>•Count backwards<br>•Recognise some numerals between 6-10.<br>•Subitise to 5 using fingers<br>•Recite numbers in order to 20.<br>Name some 2D shapes<br>•Create a new pattern following an example<br>•Order 0-5. |

| | Recognise that an amount stays the same no matter how it is displayed |
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| Reception E | I can...<br>•Count actions or objects<br>•Count out objects from a larger group<br>•Match numeral to quantity 0-3<br>•Read numerals.<br>•Count beyond 10.<br>•Compare amounts using mathematical language.<br>•Explore size, mass and capacity.<br>•Create patterns.<br>•Estimate how many objects I can see.<br>•Identify smaller amounts within a larger amount.<br>•Count on and count back.<br>•Sequence numerals 0-5.<br>•Identify one more and one less.<br>•Compare size.<br>•Use positional language accurately. |
| Reception D | I can...<br>•Compare mass and capacity.<br>•Explore the composition of number 4 -7.<br>•Add two single digit numbers.<br>•Count two groups together to find the total.<br>•Find pairs.<br>•Compare length and height.<br>•Explore 3D shapes.<br>•Explore the composition of 8-10.<br>•Spot patterns in numbers.<br>•Explore number bonds to 10.<br>•Represent patterns in numbers. |
| Reception S | I can...<br>•Match, rotate and manipulate shapes.<br>•Explore the composition and decomposition of shapes.<br>•Take away two single digit numbers.<br>•Use the right mathematical language when adding and taking away. |

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| | •Recall number bonds.<br>•Recall double facts.<br>•Use number facts to solve mathematical problems..<br>•Share a set of objects.<br>•Split a group in half.<br>•Identify odd and even numbers.<br>•Form numerals correctly. |

Impact

Children will achieve the Early Learning Goals for Mathematics

**Number**
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 aides) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

**Numerical Patterns**
Children at the expected level of development will:
- Count confidently 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.

**Links to KS1**
Count to and across 100. Identify amounts using objects and pictorial representations.
Use language more than/less than/equal to/most/least
Represent and use number bonds and related facts within 20.
Solve one step problems
Read and write numbers from 1-20 in numerals and words.
Read numbers to 100.
Recognise and name 2D and 3D shapes.

Describe position, direction and movement, including whole, half, quarter and three quarter turns.
Compare, describe and solve practical problems for length, height, mass, weight, capacity, volume.
Begin to record measurements.
Tell the time to quarter hour
Know some coins.