Mathematics
Curriculum Overview for 2 Year Olds

EYFS Educational Programme:

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 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 Statement:

Mathematics

At Sir James Knott Nursery School, our intent for Mathematics in our 2-year-old provision is to develop fluent mathematicians who have deep conceptual understanding of number. We ensure that they are able to provide explanations, give reasons for their answers and tackle future challenges by:

➕ Providing opportunities for children to practise, rehearse and apply mathematical knowledge and skills.
🔍 Encouraging children to investigate numbers by exploring their characteristics and patterns, understanding how they can be manipulated using different operations.
🧩 Encouraging them to think logically so that they can make connections and solve problems.
🗣️ Fostering children's acquisition and use of mathematical vocabulary to justify and explain their ideas.

We recognise that every child in unique and will develop at their own pace. Our practitioners are sensitive to developmental needs, including those related to communication, sensory regulation, and SEND, ensuring that all children feel respected and included.

Knowledge				
Number **I know….**	**Spatial Awareness** **I know….**	**Shape** **I know….**	**Pattern** **I know….**	**Measures** **I know…**
• that numbers are used to say how many things there are. • that some number names in order and can join in with counting rhymes or games. • that when I count objects, each one is counted once. • that written numerals represent numbers. • that numbers can be used to show how many, what order things come in, or to label something. • that a small group of objects can be more, less, or the same as another group. • when a set has "just one more" or "just one less". • I can use counting to help me solve problems in play and daily routines. • that sharing or taking away changes the amount.	• simple position words like *in, on, under, up, down, behind, in front, next to*. • that objects and people can move in different directions and positions. • that I need space to move safely without bumping into others. • that objects and shapes can be moved, turned, and placed in different ways. • that shapes and objects can fit together in different ways. • that puzzles, blocks, and construction toys can be used to make arrangements and models. • that I can use marks, drawings, or models to show where things are or how they move. • that I can follow or give simple directions to find something.	• the names of some common 2D shapes like circle, square, triangle, and rectangle. • that some shapes are flat (2D) and some are solid (3D). • that shapes have sides, corners, or faces that make them different. • that shapes can be the same or different in size and appearance. • that shapes are all around me in the environment. • that I can spot shapes in everyday objects (e.g., wheels are circles, doors are rectangles). • that shapes can fit together to make patterns, pictures, or models. • that shapes can be moved, turned, or built up to make new shape.	• that patterns can be found in clothes, objects, nature, and the environment. • that patterns can be made with shapes, colours, sounds, or movements. • that patterns often repeat in the same way (e.g., red-blue-red-blue). • that I can continue a simple pattern that someone else has started. • that I can make my own patterns using objects, shapes, sounds, or actions. • that patterns can change depending on how I arrange things. • that routines and sequences are patterns that help me know what comes next. • that numbers, songs, and rhymes often use patterns.	• that objects can be big or small, long or short. • that things can be compared by size or length. • that some objects are heavy and some are light. • that I can use my hands or simple tools (like a balance) to compare weight. • that containers can hold more or less. • that pouring, filling, and emptying helps me see how much something can hold. • that some events happen in order (morning before night, first then next). • that daily routines (like meals, playtime, bedtime) follow a pattern in time. • words like *big, small, tall, short, heavy, light, full, empty, more, less*. • these words help me describe and compare things.

Skills				
• I am learning to say number names in order as I count. • I am learning to count objects one by one, giving each object just one number name. • I am learning to know that the last number I say tells me how many there are. • I am learning to notice written numbers. • I am learning to match numbers to small amounts of objects. • I am learning to compare two groups and say if one has more, fewer, or the same. • I am learning to find one more or one less than a number of objects. • I am using counting to help me in play and daily routines. • I am learning that adding things makes more, and taking things away makes fewer.	• I am learning to use words like *in, on, under, behind, next to, up, down* to describe where things are. • I am learning to follow simple instructions about position (e.g., *"Put the teddy under the chair"*). • I am learning to move safely, finding my own space without bumping into others. • I am learning to explore different ways of moving my body through, under, over, and around things. • I am learning to fit shapes and objects together, like when I do puzzles or build with blocks. • I am learning to notice when things can be turned or moved to fit into spaces. • I am learning to make marks, drawings, or models to show where things are. • I am learning to follow or give simple directions.	• I am learning to use the words circle, square, triangle, and rectangle. • I am learning that some shapes are flat and some are not. • I am learning to talk about shapes, sides, corners, or faces that make them different from each other. • I am learning to see shapes are all around me. • I am learning to fit shapes together to make pictures, models, or patterns. • I am learning to make models using shapes.	• I am learning to see patterns around me in clothes, objects, songs, and nature. • I am learning to see when things look the same or different. • I am learning to spot when a pattern repeats (e.g., red–blue–red–blue). • I am learning to continue a simple repeating pattern. • I am learning to make my own patterns using colours, shapes, objects, or actions. • I am learning to change patterns by adding something new. • I am learning to follow simple routines that happen in the same order every day. • I am learning that songs, rhymes, and numbers often use patterns.	• I am learning to use words like *big, small, tall, short, long* to describe objects. • I am learning to compare the length and size of different things. • I am learning to notice when things are heavy or light. • I am learning to compare objects using my hands or simple scales. • I am learning to fill and empty to see which holds more or less. • I am learning to use words like *full, empty, more, less*. • I am learning that some events happen in order. • I am learning to talk about what happens first, next, and last. • I am learning to use measuring skills when I play, build, cook, or explore. • I am learning to notice when things will fit, balance, or be "just right.

Implementation Statement:

At Sir James Knott Nursery School, we implement high-quality provision for Mathematics in our 2-year-old setting through the following approaches:

🐣 Developmentally Appropriate Practice

- Mathematics is introduced through play, exploration, and everyday routines, rather than formal teaching.
- Learning is relational and responsive, building on children's interests, schemas, and developmental stages.
- Repetition and familiarity are valued, allowing children to revisit experiences and build understanding over time.

🗣️ Language-Rich Interactions

- Adults model simple mathematical language such as more, all gone, big, small, one, and lots.
- Counting is introduced naturally through songs, rhymes, and shared moments, with no expectation of accuracy.
- Practitioners narrate play and routines, supporting children to hear and begin to internalise early mathematical concepts.

🧺 Environment and Resources

- The environment is organised to promote independent exploration, with accessible baskets, containers, and open-ended resources.
- Children explore filling, emptying, stacking, posting, and transporting objects to develop early concepts of quantity and space.
- Everyday objects are used alongside purpose-made resources to ensure learning is meaningful and familiar.

🌊 Sensory and Physical Exploration

- Mathematics is embedded within sensory play, including water, sand, and outdoor exploration.
- Construction and physical play support early understanding of size, weight, capacity, and spatial awareness.
- Outdoor experiences provide opportunities to explore movement, distance, and positional language.

👣 Observation-Led Planning

- Planning is informed by ongoing observation and assessment, ensuring provision meets children where they are developmentally.

- Adults adapt experiences in the moment to gently extend learning through interaction and modelling.

✅ **Overall Implementation:** In our 2-year-old provision, mathematics is implemented through a balance of intentional teaching, continuous provision, and responsive adult interaction. Learning opportunities are planned to ensure progression while remaining flexible and child-centred.

Adults use strong subject knowledge to model mathematical language, pose problems, and support children to think, explore, and make connections. Mathematical concepts are revisited regularly and embedded across the day, recognising that mathematics is not confined to one area of provision but is part of everyday life.

The learning environment is thoughtfully resourced to promote independence, curiosity, and challenge, with materials accessible to all children. Planning is informed by observation, assessment, and knowledge of child development, ensuring that learning builds cumulatively over time.

Through consistent approaches, high-quality interactions, and inclusive practice, children develop confidence, enjoyment, and a secure foundation in mathematical thinking that prepares them for future learning.

First milestone: 🔢 Counting and Quantity Children can count reliably up to 10 objects, matching one number to each object. They understand that the last number counted represents “how many”.	• Model counting objects one by one, encouraging children to join in. • Encourage children to touch or move objects as they count to ensure one-to-one correspondence. • Ask questions like: “How many blocks are there?” “Can you give me one more?”. • Use everyday opportunities: snack time, setting the table, or tidying up.
Second milestone: 🔍 Recognising and Using Numbers Children begin to recognise numerals and understand that numbers represent quantities. They can identify one more or one less than a small number.	• Introduce written numerals alongside counting activities. • Encourage matching numerals to quantities in play (e.g., number cards and blocks). • Play games involving one more/one less, adding or taking away objects.

	• Celebrate children noticing numbers in the environment (clocks, doors, books).
Third milestone: 📐🧭 Shape, Space, and Spatial Awareness Children recognise and name simple 2D and 3D shapes (circle, square, triangle, cube, sphere). They use positional language (in, on, under, behind) and understand simple directions.	• Provide puzzles, construction toys, and building activities to explore shapes and spatial relationships. • Use positional language during play: "Put the car under the bridge", "Place the block on top." • Encourage children to describe shapes, their properties, and where objects are. • Incorporate movement games that involve direction and space awareness.
Forth milestone: 📏🟦🟥 Measures and Patterns Children explore size, length, weight, capacity, and time using comparison language (big, small, heavy, light, more, less). They notice, copy, and create simple repeating patterns.	• Provide practical experiences with measuring objects: comparing heights, weights, or capacity. • Encourage use of descriptive language: big/small, heavy/light, full/empty, more/less. • Introduce simple repeating patterns in play, songs, or art, and encourage children to continue or create their own patterns. • Include everyday comparisons: lining up shoes, filling cups, or sorting toys.
Final milestone: 🧠✨ Mathematical Thinking and Problem Solving • Children begin to use counting, numbers, shapes, measures, and patterns to explore and solve practical problems. • They can compare quantities, sizes, and amounts, and notice relationships between them. • They predict, experiment, and reason about simple mathematical outcomes.	
Vocabulary: counting, size, shape, measure, pattern, triangle, square, circle, rectangle, fit, big, small, lots, less, more, point, in, on, under, beside, between, inside, behind, place, turn, round, fill, empty, repeat, add	

Impact Statement:

😊 **Positive Dispositions to Learning**

By the end of being two I can...

- Show how curiosity and enjoyment when exploring number, space, and measure through play.
- Confidently repeat favourite activities, showing growing familiarity with routines and resources.
- Demonstrate sustained interest in simple mathematical experiences such as filling, emptying, and stacking.

🗣️ **Early Mathematical Language**

By the end of being two I can...

- Begin to understand and use early mathematical words such as more, all gone, big, small, and lots.
- Respond to adult modelling by showing understanding through actions, gestures, or simple vocalisations.
- Join in with number rhymes and songs, showing awareness of counting sequences.

👐 **Understanding Quantity and Number Awareness**

By the end of being two I can...

- Show early awareness of quantity, recognising differences between one and many.
- Explore number concepts through practical play, such as giving objects, collecting items, or posting shapes.
- Demonstrate early counting behaviours, including pointing or saying number words without expectation of accuracy.

📐 **Spatial Awareness and Shape Exploration**

By the end of being two I can...

- Explore space, shape, and size through construction, movement, and physical play.
- Show awareness of positional language such as in, out, up, and down through their actions.
- Experiment with stacking, fitting, and balancing objects.

🌊 **Exploration of Measure and Sensory Concepts**

By the end of being two I can...

- Explore capacity and measure through water, sand, and sensory play.
- Show understanding through actions, such as filling containers, pouring, or carrying heavy and light objects.
- Demonstrate growing confidence in exploring materials and environments independently.

🧠 **Foundations for Future Learning**

By the end of being two I can...

- Develop a secure foundation for mathematical thinking, supported by meaningful, play-based experiences.
- Show increasing independence, confidence, and willingness to explore and problem-solve.
- Be well prepared to build on their early mathematical understanding as they move into the next stage of learning.

✅ **Overall Impact:** As a result of a nurturing, play-based mathematics curriculum, 2-year-olds develop curiosity, confidence, and enjoyment when exploring early mathematical ideas. Through repeated, meaningful experiences and responsive adult interactions, children begin to make sense of number, space, and measure in ways that are relevant to their everyday lives.

Children demonstrate growing awareness of quantity, size, and spatial relationships**,** using actions, gestures, and early language to show understanding. They engage with mathematical experiences through play, routines, and sensory exploration, building familiarity and confidence over time.

Through consistent routines, inclusive practice, and carefully organised environments, children develop positive learning dispositions**,** including independence, persistence, and willingness to explore. They feel secure to investigate, repeat, and experiment, laying strong foundations for future learning.

By the end of this stage, children are well prepared to progress into the next phase of learning, with emerging mathematical understanding and the confidence to engage in more complex ideas as they continue their learning journey.

Mathematics
Curriculum Overview for 3 and 4 year olds

EYFS Educational Programme:

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 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 Statement:

At Sir James Knott Nursery School, our intent for Mathematics in our 3-4 year-old provision is to:

Intentional Teaching

📚 Mathematical concepts are introduced through short, focused adult-led group times.

🔢 Sessions use practical resources, stories, songs, and visuals to support understanding of number, shape, space, and measure.

🔁 Learning builds progressively, revisiting key concepts to support retention and fluency.

High-Quality Adult Interactions

💬 Adults model accurate mathematical language and thinking aloud during play and routines.

❓ Open-ended questioning supports reasoning, prediction, and problem-solving.

🤝 Practitioners engage in sustained shared thinking, helping children explain and justify their ideas.

Enabling Environments

🧩 Continuous provision is carefully resourced to allow children to apply mathematical learning independently.

🔢 Resources such as number lines, manipulatives, construction materials, and games are accessible and inviting.

🌿 Mathematics is embedded indoors and outdoors, offering opportunities for movement, exploration, and challenge.

Application Through Play

🛠️ Children use mathematical knowledge in real-life and play-based contexts, including role play, construction, and outdoor learning.

🔁 Concepts such as counting, comparing, and measuring are reinforced through everyday routines.

🧠 Children are encouraged to test ideas, notice patterns, and solve problems independently and collaboratively.

Assessment and Inclusion

👀 Ongoing observation and assessment inform planning and next steps.

🌈 Provision is adapted to ensure all children can access, succeed, and be challenged appropriately.

🚀 Timely support or extension is provided to meet individual needs.

We recognise that every child is unique and will develop at their own pace. Our practitioners are sensitive to developmental needs, including those related to communication, sensory regulation, and SEND, ensuring that all children feel respected and included.

Knowledge				
Number **I know….**	**Spatial Awareness** **I know….**	**Shape** **I know….**	**Pattern** **I know….**	**Measures** **I know….**
• numbers are used to represent how many objects there are. • how to count reliably beyond 10 objects. • that the last number I say when counting tells me "how many" there are. • that written numerals represent quantities. • that numbers can be used to show order, label things, or describe amounts. • that some groups of objects have more, fewer, or the same number. • that adding makes more and taking away makes fewer. • simple ways to solve problems using counting, adding, or subtracting. • numbers follow sequences and can be ordered. • that numbers can be grouped in patterns to make counting easier (e.g., 2s, 5s, 10s).	• that objects and people can be in different positions and move in different directions. • that words like *in front, behind, next to, above, below, left, right* describe where things are. • I need space to move safely and avoid bumping into others. • I know that my body can move in different ways- over, under, through, around, and along paths. • that objects and shapes can be turned, flipped, or slid to fit into spaces. • that arranging shapes and objects in different ways can change how things look or function. • that I can use marks, drawings, or models to show where things are. • that I can follow or give directions to help find something or get from one place to another.	• the names of common 2D shapes (circle, square, triangle, rectangle, hexagon) and 3D shapes (cube, sphere, cylinder, cone). • the difference between flat (2D) shapes and solid (3D) shapes. • that shapes have sides, corners, edges, and faces that make them different from one another. • that shapes can be the same or different in size, orientation, or appearance. • that shapes are found all around me in everyday objects and buildings. • that I can identify and describe shapes in the environment. • that shapes can be combined, rotated, flipped, or rearranged to make new shapes, pictures, or patterns. • that shapes can be used for building and creating models.	• that patterns can be found in objects, numbers, shapes, colours, sounds, and movements. • some patterns repeat in the same way while others may change. • that repeating patterns can be continued by predicting what comes next. • that patterns can be extended, changed, or made more complex. • that I can make my own patterns using objects, shapes, sounds, or actions. • that patterns can be arranged in sequences. • that routines, songs, rhymes, and numbers often have patterns that help me predict what comes next. • that noticing patterns helps me make sense of the world around me.	• objects can be long, short, tall, or small. • I can compare lengths and heights of different objects. • some objects are heavier or lighter than others. • I can compare weight using my hands or simple tools like balances. • that containers can hold more or less depending on their size. • that filling, pouring, and emptying helps me understand capacity. • that some events happen in a particular order. • words like *first, next, last, morning, afternoon, night* help describe when things happen. • that words like *big, small, heavy, light, full, empty, more, less* help me describe and compare things. • that comparing and measuring helps me solve problems and make decisions.

Skills				
• I am learning to count reliably beyond 10 objects. • I am learning to say numbers in order and match them to quantities accurately. • I am learning to recognise that the last number I say tells me how many objects there are. • I am learning to recognise written numerals and match them to amounts. • I am learning to use numbers to label, order, or describe objects. • I am learning to compare groups of objects and say which has more, fewer, or the same. • I am learning to add or take away small numbers to solve problems • I am learning to use counting to help me solve simple problems in everyday activities. • I am learning to notice number sequences and order numbers correct. • I am learning to spot patterns in numbers and use them to make counting easier (e.g., 2s, 5s, 10s).	• I am learning to use words like *in front, behind, next to, above, below, left, right* to describe where things are. • I am learning to follow and give instructions using positional and directional language. • I am learning to learning to move my body safely in different ways- over, under, through, around, and along paths. • I am learning to find and use space without bumping into others. • I am learning to turn, flip, slide, and arrange objects and shapes to fit into spaces. • I am learning to explore how combining and arranging shapes changes how things look or work. • I am learning to use drawings, models, or marks to show where things are. • I am learning to follow or give directions to help someone find something or get from one place to another.	• I am learning to recognise and name common 2D shapes (circle, square, triangle, rectangle, hexagon). • I am learning to recognise and name common 3D shapes (cube, sphere, cylinder, cone). • I am learning to describe shapes by their properties, such as sides, corners, edges, and faces. • I am learning to notice similarities and differences between shapes in size, orientation, or appearance. • I am learning to spot shapes in everyday objects and buildings. • I am learning to talk about and compare the shapes I see around me. • I am learning to combine, rotate, flip, or rearrange shapes to make new shapes, pictures, or patterns. • I am learning to use shapes to build, model, and create.	• I am learning to spot patterns in objects, numbers, shapes, colours, sounds, and movements. • I am learning to notice when patterns repeat or change. • I am learning to continue repeating patterns that someone else has started. • I am learning to make patterns to make them longer. • I am learning to make my own patterns using objects, shapes, colours, sounds, or actions. • I am learning to arrange patterns in sequences. • I am learning to spot patterns in routines, songs, rhymes, and numbers. • I am learning to use patterns to predict what comes next and make sense of the world.	• I am learning to compare and describe objects as long, short, tall, big, or small. • I am learning to measure and estimate length or height using non-standard or simple standard units. • I am learning to notice and compare objects that are heavy or light. • I am learning to use simple tools, like scales, to measure and compare weight. • I am learning to compare how much different containers can hold. • I am learning to use words like *full, empty, more, less* when exploring liquids or other materials. • I am learning to order events and routines in the correct sequence. • I am learning to use words like *first, next, last, morning, afternoon, night* to talk about when things happen. • I am learning to use measuring and comparison skills in practical activities such as cooking, building, or play. • I am learning to predict and check results when comparing

				objects by size, weight, or capacity.

Implementation Statement:

At Sir James Knott Nursery School, we implement high-quality provision for Mathematics in our 3-4 year olds through the following approaches:

🎯 Intentional Teaching

- Mathematical concepts are introduced through short, focused adult-led group times.
- Sessions use practical resources, stories, songs, and visuals to support understanding of number, shape, space, and measure.
- Learning builds progressively, revisiting key concepts to support retention and fluency.

🧠 High-Quality Adult Interactions

- Adults model accurate mathematical language and thinking aloud during play and routines.
- Open-ended questioning supports reasoning, prediction, and problem-solving.
- Practitioners engage in sustained shared thinking, helping children explain and justify their ideas.

🧺 Enabling Environments

- Continuous provision is carefully resourced to allow children to apply mathematical learning independently.
- Resources such as number lines, manipulatives, construction materials, and games are accessible and inviting.
- Mathematics is embedded indoors and outdoors, offering opportunities for movement, exploration, and challenge.

👣 Application Through Play

- Children use mathematical knowledge in real-life and play-based contexts, including role play, construction, and outdoor learning.
- Concepts such as counting, comparing, and measuring are reinforced through everyday routines.
- Children are encouraged to test ideas, notice patterns, and solve problems independently and collaboratively.

📋 **Assessment & Inclusion**

- Ongoing observation and assessment inform planning and next steps.
- Provision is adapted to ensure all children can access, succeed, and be challenged appropriately.
- Timely support or extension is provided to meet individual needs.

✅ **Overall Implementation:** For children aged 3–4, mathematics is implemented through a carefully sequenced balance of intentional teaching, structured play, and high-quality continuous provision. Learning opportunities are designed to build progressively on prior knowledge while remaining engaging, practical, and meaningful.

Adults use strong subject knowledge to introduce and revisit key mathematical concepts through short, focused group sessions**,** alongside skilled interactions within play. Mathematical language is modelled consistently, and children are supported to reason, solve problems, and explain their thinking through sustained shared thinking.

The indoor and outdoor environments are thoughtfully organised and well resourced to enable children to apply mathematical learning independently across the day. Resources are accessible and purposeful, encouraging exploration, challenge, and repeated practice.

Ongoing observation and assessment inform planning and ensure learning is responsive to children's needs, interests, and developmental stages. Inclusive practice ensures all children are supported appropriately, with timely challenge or intervention where needed.

Through consistent approaches, enabling environments, and skilled adult support, children develop secure foundations in mathematics and are well prepared for the next stage of their learning journey.

First milestone: 🔢 Counting and Using Numbers Children can count reliably beyond 10 and match numbers to quantities accurately. They begin to use numbers to solve simple problems in play and daily routines.	• Encourage children to count objects accurately, touching or moving each item as they count. • Use everyday routines for counting opportunities (snacks, steps, toys). • Ask questions like: "How many blocks do we need to build a tower?" or "Can you give one more to each friend?". • Introduce simple problem-solving activities using counting.

Second milestone: 🔍 Recognising and Using Numerals Children can recognise written numerals and understand what they represent. They can use numbers to order, label, or describe amounts.	• Provide numeral cards, labels, and number displays in the environment. • Encourage children to match numerals to quantities in play. • Highlight numbers in daily life (doors, clocks, buses) and discuss their meaning. • Play games involving ordering numbers, one more/one less, and simple addition/subtraction.
Third milestone: 📐🧭 Shape, Space, and Spatial Awareness Children can recognise 2D and 3D shapes and use positional and directional language. They can combine, rotate, and arrange shapes to fit spaces or create patterns.	• Offer puzzles, construction toys, and building activities to explore 2D and 3D shapes. • Use positional and directional language in play: “Put the car under the bridge”, “Place the block on top.” • Encourage children to describe shapes, their properties, and where objects are. • Include movement games that involve navigating space, direction, and pathways.
Forth milestone: ⚖️🔁 Measures and Patterns Children compare size, length, weight, and capacity, and use language to describe differences. They can recognise, continue, and create repeating patterns.	• Provide practical measuring opportunities (comparing heights, weights, capacities). • Encourage use of descriptive language: big/small, heavy/light, full/empty, more/less. • Introduce and extend repeating patterns in play, art, songs, or construction. • Use everyday activities to explore measures: lining up shoes, filling cups, or sorting toys by size or weight.

Final milestone: 🧠✨ Mathematical Thinking and Problem Solving

- Children begin to use numbers, shapes, measures, and patterns to explore, predict, and solve practical problems.
- They compare quantities, sizes, and amounts**,** and explain relationships between them.
- They use reasoning to check results and make simple predictions or estimations.

Vocabulary: shape, size, big, small, medium sized, triangle, square, rectangle, circle, cube, cuboid, sphere, pyramid, measure, long, short, tall, wide, full, empty, more, less, least, fewer, pattern, repeat, position, fit, turn, count, numbers, how many, take away, add, show me, measure, length, compare, problem, solve, weight, heavy, light, scales, front, back, on, in, inside, behind, between, beside

Impact Statement:

😊 Positive Attitudes and Mathematical Confidence

By the end of being in Nursery I can…

- Children show confidence and enjoyment when engaging in mathematical activities.
- They demonstrate curiosity, persistence, and willingness to tackle challenges.
- Children revisit and apply mathematical learning independently during play.

🔢 Number and Numerical Understanding

By the end of being in Nursery I can…

- Children confidently count objects, understanding that the final number represents the total.
- They begin to compare quantities and explore concepts such as *one more* and *one less*.
- Children recognise and use numerals in meaningful contexts.

🗣️ Mathematical Language and Reasoning

- Children use accurate mathematical vocabulary to describe quantity, size, and position.
- They explain their thinking and begin to justify their choices when solving problems.
- Children engage in sustained shared thinking with adults and peers.

📐 Shape, Space and Measure

- Children recognise and name 2D and 3D shapes in their environment.
- They use positional language to describe movement and relationships.
- Children compare size, length, weight, and capacity using everyday language.

🌍 Problem Solving and Application

- Children apply mathematical understanding to real-life situations and play.
- They explore patterns, make predictions, and test ideas through investigation.
- Children show flexibility in thinking and adapt strategies when faced with challenges.

🚀 **Preparation for Future Learning**

- Children develop a secure foundation in mathematical concepts that prepares them for Reception.
- They show increasing independence, resilience, and confidence as learners.
- Children are well prepared to meet the Early Learning Goals through embedded, meaningful experiences.

✅ **Overall Impact:** By the time children leave our Nursery, they demonstrate confidence, curiosity, and enjoyment in mathematics. They have developed a secure understanding of early number, shape, space, and measure through meaningful, play-based experiences that are carefully planned and supported by skilled adults.

Children are able to count with purpose**,** recognise quantities, and use mathematical language to describe and explain their thinking. They apply their learning across a range of contexts, including play, routines, and problem-solving activities, showing increasing independence and resilience when faced with challenge.

Through high-quality interactions and sustained shared thinking, children are able to reason, make connections, and justify their ideas using appropriate vocabulary. They show awareness that mathematics is part of everyday life and use their knowledge confidently in practical situations.

As a result of consistent teaching, inclusive practice, and a well-resourced environment, children are well prepared for the transition into Reception. They leave nursery with the skills, knowledge, and positive learning dispositions needed to successfully meet the Early Learning Goals and to continue their mathematical learning with confidence and enthusiasm.