Early Years Foundation Stage

Mathematics Medium Term Plan:

Our Rainbow Promises:

Encourage Resilience and perseverance
Develop Articulate learners
Influence aspirations
Nurture curiosity
Instil British and Christian Values
Provide Opportunities to build upon knowledge and skills
Promote Wellbeing and Health

R	Strategies for developing metacognition woven throughout the mathematics curriculum. Inclusive approach to lessons - "keep up with new content", as opposed to having to "catch up" for all learners.
A	Use of STEM sentence starters and progressive vital vocabulary woven into all lessons and clearly displayed on working wall. Extensive opportunities to reason and discuss problems within journaling.
I	Mathematical careers discussed. Deepening Understanding Maths Club, and Money Mentors in Y4/Y5/Y6. Utilise 'assessment as learning' to develop and support children's metacognitive skills - empowers a growth mindset where children can see their maths ability as something that can change and improve.
N	Child led learning as a feature of the three-part lesson - children to articulate their own understanding and methods.
B	British Values (Rule of Law and Mutual Respect). Christian Values (Courage and endurance). SMSC woven throughout
O	Subject planning and delivery sequenced through a spiral curriculum with extensive retrieval opportunities built around Rainbow Promises. Development of computational thinking, building on learning in Computing curriculum.
W	Application of Mathematics to real life contexts.

Mathematics Curriculum Intent:

At Parish Church of England Primary school, we provide a high-quality mathematics education utilising a mastery approach so that all children: become fluent in the fundamentals of mathematics; are able to reason mathematically with increasing articulacy; and can solve problems by applying their understanding to a variety of problems. Our inclusive mathematics curriculum provides challenge for all pupils with teachers choosing to progress to new learning only when the majority of learners have a secure understanding. Challenge occurs through depth of understanding with an offer of rich and sophisticated problems rather than new content. Our mathematics curriculum aims to develop the five core mathematical competencies in all of our learners – therefore providing a foundation for our children to understand the world around them knowing both the beauty and power of mathematics in its own right and how it can be applied to other subjects across the curriculum including Science and Computing.

Our Approach to Mathematics in Nursery:

In Nursery, our bespoke approach (supported but not dictated by Master the Curriculum resources) ensures that children have the foundations to be confident Mathematicians. With Nursery Rhymes and texts at the core (supporting Building the Strong Foundations guidance), frequent and varied opportunities to build and apply this understanding are had with representations and manipulatives at the core. Children subsequently develop a secure base of from which mastery of mathematics is built. In addition, children have rich opportunities to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures – all taught progressively with opportunity for consolidation and retrieval throughout.

Our Approach to Mathematics in Reception (Maths No Problem! Foundations)

Throughout Reception, our use of Maths No Problem! Foundations provides our children with a deep maths-mastery focus with genuine attention to learning core principles through embedded play. Perfectly preparing children for further study in Year 1, using the scheme as an outline to support teaching and learning (adapted weekly by our highly skilled practitioners) meets all of the requirements of the revised EYFS Framework. This proven, research-based solution encourages learning through play and helps children in the Early Years begin to develop a deep understanding of the world of mathematics. Foundations includes Workbook Journals and picture books to develop a deep and long-lasting understanding of the world of mathematics.

Maths No Problem! Foundations Lesson Structure:

Online Teacher Guides

- Twelve weeks' worth of flexible yet structured lesson plans per term, 180 in total
- Comprehensive guidance for each week, including the area of learning, the learning strand, and the objective
- A description of what resources will be needed in the classroom
- Resource sheets to download and print out
- A description of the mathematical vocabulary pupils will encounter

Workbook Journals

- Three Workbook Journals to cover all three terms
- Two activities per week
- A focus on images rather than text to minimise cognitive load on early learners
- Concise instructions for teachers
- A deep mastery focus to ensure activities give pupils the most direct access to core maths principles

Picture Books

- Combine the magic of stories by author James Allan Hermanson with design directed by renowned Singapore maths expert Dr. Yeap Ban Har
- Two sets of teacher guidance for each book
- Each story is deeply rooted in the core principles of maths mastery

Our Approach to Mathematics Teaching in the Early Years:

Mathematics in EYFS:

In the context of mathematics, the framework says children must be given opportunities to develop their skills in the following areas:

- Counting
- Understanding and using numbers
- Calculating simple addition and subtraction problems
- Describing shapes, spaces, and measure

Early Learning Goals:

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 five
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to five (including subtraction facts) and some number bonds to 10, including double facts

Numerical Patterns:

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

Six key areas of mathematical learning

Cardinality and Counting

When children understand the cardinality of numbers, they know what the numbers mean in terms of knowing how many things they refer to.

Comparison

Comparing numbers involves knowing which numbers are worth more or less than each other.

Composition

Learning to 'see' a whole number and its parts at the same time is a key development in children's number understanding.

Pattern

Developing an awareness of pattern helps young children to notice and understand mathematical relationships.

Shape and space

Mathematically, the areas of shape and space are about developing visualising skills and understanding relationships, such as the effects of movement and combining shapes

Measures

Measuring in mathematics is based on the idea of using numbers of units in order to compare attributes, such as length or capacity

The Principles of our Mathematics Practice in EYFS:

Daily Routine:

Developing maths talk in your daily routine gives learners a chance to understand concepts while using real-life concepts. It also means that children can consolidate what they have learned.

Mark Making:

Research from Carruthers and Worthington into children's mathematical graphics reveals young children use their own marks and representations to explore and communicate their mathematical thinking. These graphics include:

- Scribble-marks
- Drawings
- Writing
- Tally-type marks
- Invented and standard symbols including numerals

Young children's graphical exploration "builds on what they already know about marks and symbols and lays the foundations for understanding mathematical symbols and later use of standard forms of written mathematics," the researchers said. In a 2009 publication, the UK Department for Children, Schools and Families, says practitioners should: "Value children's own graphic and practical explorations of problem solving" and observe "the context in which young children use their own graphics."

Careful Questioning:

When children play and interact with other children, there are always opportunities for maths talk to help them develop a deep understanding, says Sabinra Pinnock.

For instance:

- I have made a pattern. What's your pattern?
- How many blocks taller is my model compared to yours?
- How do we know this area is full?
- I have three cars, how many do you have?
- Do you have more?
- How do you know?
- Give learners long enough to think about their answer and give their response, but not so long that it disrupts the flow of play.

Pattern Awareness:

Spotting underlying patterns is important for identifying many different kinds of mathematical relationships. It underpins memorization of the counting sequence and understanding number operations, for instance recognizing that if you add numbers in a different order their total stays the same.

Pattern awareness has been described as early algebraic thinking, which involves:

- Noticing mathematical features
- Identifying the relationship between elements
- Observing regularities

Developing Counting Skills:

Very young children start to count spontaneously and later begin to refine their skills by pointing their finger at the objects they are counting.

They will often try to get all the names of the numbers they know into their count as they pass their finger along the objects. They also reuse numbers. If they have not finished and they have used up all their known numbers, they will begin using the same numbers again.

In their drive to make meaning, children are eager to experiment as they acquire new small bits of mathematical knowledge. It is extremely important to respect their developing understanding and not expect "perfect" counting sequences.

By valuing children's partial understanding, children will develop enthusiasm for numbers and become confident mathematician

Long-Term Plan EYFS:

	Cycle 1 [7 weeks]	Cycle 2 [7 weeks]	Cycle 3 [7 weeks]	Cycle 4 [7 weeks]	Cycle 5 [7 weeks]
Nursery	Colours (2 weeks) Matching (2 weeks) Sorting (2 weeks) Number 1 (1 week)	Numeral 2 - counting and subitising (2 weeks) Patterns (2 weeks) Numeral 3 - Counting and subitising (2 weeks) Numeral 4 - Counting and subitising (1 week)	Numeral 4 - Composition (1 week) Numeral 5- Counting and Subitising (1 week) Numeral 5 - Composition (1 week) Consolidation Numbers 1-5. (1 week) Numeral 6 (1 week) Height and Length (1 week) Mass (1 week).	Capacity (1 week) Sequencing (1 week) Positional Language (1 week) More than/Fewer (1 week) 2D Shape (1 week) 3D Shape (1 week)	Number Composition (1 week) What comes after? (1 week) What comes before? (1 week) Numbers to 5 (1 week) Consolidation (2 weeks)
Reception	Matching (1 week) Sorting (1 week) Comparing and Ordering (1 week) AB Patterns (1 week) Counting (2 weeks)	Time (1 week) Composition of Numbers to 5 (2 weeks) 2D Shapes (2 weeks) Positional Language (1 week) Counting (1 week)	Counting and Ordering (1 week) Counting (1 week) Addition (1 week). Comparing and Ordering (1 week) Counting (2 weeks). Patterns (1 week)	Measuring Lengths and Heights (1 week) Capacity (1 week) 2D Shapes (1 week) 3D Shapes (1 week) Counting on to Add (1 week) Counting Forwards and Backwards (1 week) Counting to 20 (1 week)	Doubling (1 week) Halving and Sharing (1 week) Odds and Evens (1 week) Mass (1 week) Volume and Capacity (1 week) Money (1 week) Data (1 week) Retrieval Unit (1 week) Word Problems (1 week)

Mathematical Progression in Vocabulary across EYFS:

Core Vital Vocabulary.

In Early Years, weekly mathematics units are covered (through teaching and high-quality provision) with a wealth of suggested vocabulary mapped out per unit of work. This prepares children for the next stage of their Maths education. Rather than being thematic, this is coherently built over time and regularly revisited to aid retention of knowledge throughout ALL areas of learning. The following is the core vital vocabulary which children must have an understanding and awareness of to prepare to the next stage of their education.

Please note that a significant proportion of our Reception cohort do not attend our nursery, so this vocabulary has to be regularly revisited to ensure children are ready to progress and have strong foundations for future study.

Strands of Learning:	Nursery	Reception
Patterns and Ordering;	Colours, match, shade, sort, pair, top, middle, bottom, repeat, pattern, first, next, finally.	Same, different, match, large, group, before, earlier, next, after, first, second, third, repeat, how many, repeat, share, equal, pattern, most, least, first, later, then, before, after,
Counting and Composition:	Number, five-frame, count, altogether, one, two, three, four, five, more, fewer, total, one more, one less.	One, two, three, four, five, six, seven, eight, nine, ten, 11-20, how many, count, counting, forwards, backwards, order, one more, one less, part, whole, zero, nothing, more, fewer, ten frame, total, greater, smaller, part whole, number bonds, add, subtract.
Shape, Space and Measure:	Shape, flat, curve, empty, full, small, big, bigger, smaller.	Circle, triangle, rectangle, square, in, on, under, next to, behind, in front of, up, down, tall, small, longest, height, length, container, empty, full, space, curved, round, heavy, light, balance, tall, tallest, pence, coin, cost.

Nursery Coverage – Block 1

Week	Objectives	Development Matters
1	Recognise the colour red Children identify red objects and say if an object is red or not.	**EAD 3 – 4 Year Olds:** Explore colour and colour mixing
	Recognise the colour blue Children identify blue objects and say if an object is blue or not.	
	Recognise the colour yellow Children identify yellow objects and say if an object is yellow or not.	
2	Recognise the colour green Children identify green objects and say if an object is green or not.	
	Recognise the colour purple Children identify purple objects and say if an object is purple or not.	
	Recognise colours Children recap the colours they have already learnt and explore other colours. They talk about their favourite colours and match objects to the correct colour name.	
3	Recognise matching buttons Children identify a button that is the same shape or colour as a set of buttons on a shirt.	**3 – 4 Year Olds:** Make comparisons between objects relating to size Complete inset puzzles Compare sizes using gestures and language: 'bigger/little/small' Talk about and explore 2D shapes using informal and mathematical language sides, corners, straight, flat
	Recognise matching shoes Children pair up shoes that match because they are the same colour or have the same shape on them.	
	Recognise and create matching towers Children match up towers of blocks that are made up of the same colours in the same order.	
4	Match number shapes Children identify matching Numicon shapes and begin to identify how they have the same number of holes.	
	Match the same size Children match up handprints that are the same size or colour.	
	Match prints Children match prints that are the same shape, even though they might be different colours.	
5	Sort by size Children sort objects, like counting bears, by creating groups of objects that are the same size.	**3 – 4 Year Olds:** Make comparisons between objects relating to size Complete inset puzzles Compare sizes using gestures and language: 'bigger/little/small'
	Sort by colour Children sort objects that are 2 or 3 different colours.	
	Sort by shape Children sort objects, like buttons, by creating groups of objects that are the same shape.	
6	Sorting – What do you notice? Children talk about what the notice about the objects that have been grouped by an adult.	
	Sorting – Guess My Rule Children are asked to identify how groups of objects have been sorted by identifying the similarities between the objects. They then sort objects based on their own criteria.	

Week	Objectives	Development Matters
1	Number 1 –Subitising Children learn to recognise when there is 1 object in a set and how to show 1 on their fingers.	**3 – 4 Year Olds:** Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total Show 'finger numbers' up to 5. **Reception** Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5
	Number 1 – Counting Children practise counting 1 object by touching them and saying '1'.	
	Number 1 – Numeral Matching Children are introduced to the numeral 1 and match the numeral to amounts that show 1.	
2	Number 2 – Subitising Dice Patterns Children will learn to recognise 2 dots, like they see on a dice, without counting them.	
	Number 2 – Subitising Different Patterns Children will continue to recognise 2 objects without counting, this time in different arrangements.	
	Number 2 – Subitising Different Sizes and Patterns Children will learn to recognise when there are 2 dots, even if they are different sizes.	
3	Number 2 – Counting – Say One Number for Each Item Children practise counting 2 objects by touching them or pointing to them as they '1…2'.	
	Number 2 – Link Numeral and Amounts Children are introduced to the numeral 2 and link the numeral to amounts that show 2.	
	Number 2 – Link Numeral and Amounts Children look at different fonts and images of number 2 and match them to the correct amount.	
4	Colour AB Patterns Children describe AB patterns from 2 different colours and predict what will come next in the pattern.	**3 – 4 Year Olds:** Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern.
	Extend AB Patterns – Outdoor Objects Children explore creating, describing and continuing AB patterns with natural objects.	
	Extend AB Patterns – Movement In this lesson, children will continue AB patterns using movement of their body.	
5	Fix My Pattern (AB Patterns) Children describe ABC patterns made from 3 different colours and predict what will come next.	
	Extend ABC Colour Patterns Children sort objects that are 2 or 3 different colours.	
	Outdoor ABC Patterns Children explore creating, describing and continuing ABC patterns with natural objects.	
6	Consolidation – Sorting and Matching	
	Consolidation - Counting	
	Consolidation - Pattern	

Nursery Coverage - Block 2

Week	Objectives	Development Matters
1	Subitising 3 - Dice Patterns Children will learn to recognise 3 dots, like they see on a die, without counting them.	**3 – 4 Year Olds:** Develop fast recognition of up to 3 objects, without having to count them individually ('subitising') Show 'finger numbers' up to 5
	Subitising 3 –Different Patterns Children will continue to recognise 3 objects without counting them, this time in different arrangements.	
	Subitising 3 Children will learn to recognise when there are 3 dots, even if they are different sizes.	
2	Counting 3 Children focus on counting 3 objects.	**3 – 4 Year Olds:** Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Experiment with their own symbols and marks as well as numerals. Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'
	Numeral 3 Children are introduced to what the numeral 3 looks like and learn what it represents.	
	Composition of 3 Children are introduced to the idea that numbers are made up of smaller numbers and they will begin to explore what smaller numbers the number 3 is composed of.	
	Recognise triangles Children learn that triangles are 2-D shapes that have 3 sides. They are asked to identify triangles by counting their sides.	
3	Counting 4 Children focus on counting 4 objects.	
	Numeral 4 Children are introduced to what the numeral 4 looks like and match the numeral 4 to the quantity.	
	Recognise squares and rectangles Children learn that squares and rectangles are 2-D shapes that have 4 sides. They are asked to identify them by counting their sides.	
4	Composition of 4 Children will continue to explore how numbers are composed of smaller numbers. In this lesson, they will explore what numbers make up the number 4, by moving frogs between a log and a pond.	
	Composition of 4 Children will continue to explore how numbers are composed of smaller numbers. In this lesson, they will explore what numbers make up the number 4, by moving frogs exploring spots on a ladybird.	
	Composition of 4 Children will continue to explore how numbers are composed of smaller numbers. In this lesson, they will explore what numbers make up the number 4, by throwing 4 beanbags at a hoop.	
5	Counting 5 Children focus on counting 5 objects.	
	Numeral 5 Children are introduced to what the numeral 5 looks like and match the numeral 5 to the quantity.	
	Recognise pentagons Children learn that pentagons are 2-D shapes that have 5 sides. They are asked to identify them by counting their sides.	
6	Composition of 5 Children explore the composition of number 5 using Numicon pieces to make a shell for Sammy the Snail.	
	Composition of 5 Children explore fitting pieces of Numicon inside a number 5 'house' shape.	
	Composition of 5 Children explore the composition of 5 by arranging red and blue spots on a rocket.	www.masterthecurriculum.co.uk

Week	Objectives	Development Matters
1	Consolidation – Subitising Subitise counters on a 5 frame and objects arranged in dice patterns. Then, show the matching amount on your fingers.	**3 – 4 Year Olds:** Recite numbers past 5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
	Consolidation – Counting Count the toys in Crocodiles toybox	
	Consolidation – Numerals Children see the numerals in different contexts and identify which number they represent.	
2	Counting 6 Children practise counting 6 objects with 1:1 correspondence.	
	Counting 6 Children continue to practise counting 6 objects with 1:1 correspondence, in the context of pennies.	
	Counting 6 – Ten Frame Children are introduced to a ten frame and learn how 6 objects can be arranged on a ten frame.	
3	Tall and Short Children compare the height of different objects using the word tall or short.	**3 – 4 Year Olds** Make comparisons between objects relating to size, length, weight and capacity.
	Long or Short Children compare the length of different objects using the word long or short.	
	Tall / Long or Short Children compare the height or length of different objects using the words long or tall and short.	
4	Mass – Introducing Balance Scales Children are introduced to balance scales. They explore what happens when they put different objects in them. They hear the words heavier and lighter.	
	Mass - Lighter Children use the balance scales to investigate which objects are lighter.	
	Mass – Heavier or Lighter Children use the balance scales again but this time they say which object is heavier and which is lighter.	
5	Capacity – Full or Empty Children explore containers that are full or empty, both practically and pictorially.	
	Capacity – Nearly Full or Nearly Empty Children explore containers that are nearly full or nearly empty.	
	Capacity – Comparing Containers Children compare the capacity of different containers by directly pouring from one to the other.	www.masterthecurriculum.co.uk
6	Consolidation – Length Children say which objects are longer or taller and shorter.	
	Consolidation – Mass Children say which objects are heavier and which are lighter.	
	Consolidation – Capacity Children compare the capacity of different containers.	

Nursery Coverage – Block 3

Week	Objectives	Development Matters
1	Sequencing Children sequence pictures from a nursery rhyme.	**3 – 4 Year Olds:** Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'
	Sequencing Children sequence pictures from their daily routine.	
	Sequencing Children sequence pictures from a familiar story.	
2	Position – On and Under Children place an object on or under a chair, a table etc.	**3 – 4 Year Olds:** Understand position through words alone – for example, "The bag is under the table," – with no pointing.
	Position – In and Out Children explore whether an object is in or out of a basket, bag etc.	
	Position – In Front or Behind Children explore whether the gingerbread man is in front of or behind different animals	
3	Comparing Groups – More Than Children look at two sets of objects and say which set has more.	**3 – 4 Year Olds:** Compare quantities using language: 'more than', 'fewer than'.
	Comparing Groups – Fewer Than Children look at two sets of objects and say which set has fewer.	
	Comparing Groups – More Than and Fewer Than Children look at two sets of objects and identify which set has more and which set has fewer.	
4	2-D Shapes - Circles Children learn to identify circles and they begin to learn some properties of a circle.	**3 – 4 Year Olds:** Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'
	2-D Shapes – Triangles Children learn to recognise triangles and begin to learn some of the properties of a triangle.	
	2-D Shapes - Rectangles Children learn to recognise rectangles. They learn that a square is a special rectangle. They learn some of the properties of a rectangle.	
5	3-D Shapes – Cubes and Cuboids Children identify cubes and cuboids and begin to talk about some of their properties.	
	3-D Shapes - Cylinders Children learn to recognise cylinders and begin to talk about some of their properties.	
	3-D Shapes - Spheres Children learn to recognise spheres and begin to talk about some of their properties.	
6	Consolidation – Sequencing Children put familiar events in the correct order.	
	Consolidation - Position Children recap the vocabulary on, under, in, out, in front of and behind.	
	Consolidation – More or Fewer Children compare two sets of objects and say which has more and which has fewer.	

Term 6: Nursery Progression

Week	Objectives	Development Matters
1	Composition of 3 Children explore the different pairs of numbers that make up number 3.	**3 – 4 Year Olds:** Explore the composition of numbers to 10.
	Composition of 4 Children explore the different pairs of numbers that make up number 4.	
	Number Composition Children recap the different pairs of numbers that make up 3, 4 or 5.	
2	What Comes After? Children explore jumping along the number line to find what comes after.	**3 – 4 Year Olds:** Recite numbers past 5.
	What Comes After? Children count along the number track and fill in the missing number by identifying the number that comes after the numbers they know.	
	What Comes After? Children sequence numerals to 5 by identifying what comes after each number.	
3	What Comes Before? Children jump back along a number track to find the number that comes before a given number.	
	What Comes Before? Children identify the missing number on a number track by identifying what number comes before a given number.	
	What Comes Before? Children sequence numerals by counting backwards along a number line and identifying what comes before.	
4	Numbers to 5 Children count how many objects there are in a set and identify if there are enough of each object for everyone.	**3 – 4 Year Olds:** Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle') Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5 Solve real-world mathematical problems with numbers up to 5
	Numbers to 5 Children work out what number is represented by different counting cards and then sequence them.	
	Numbers to 5 Children complete mazes by working their way through the numerals in the correct order.	
5	Consolidation – Shape Patterns Children describe patterns made up of 2-D and 3-D shapes.	
	Consolidation – More or Fewer Children identify which has more and which has fewer out of two sets of objects.	
6	Consolidation – What Comes Before or After? Children use a number line to help them identify what comes before or after a given number up to 5.	
	Consolidation – Composition Children explore the composition of number 5, through the song '5 Green Bottles'.	

Nursery - Maths High-Quality Texts:

Week	Autumn	Spring	Summer
1	Red – A crayons story – Michael Hall Red is best – Kathy Stinson Red, Red, Red – Polly Dunbar Little Blue Truck Big, Yellow Digger- Julia Jarman Where are the yellow chicks, spot? Eric Hill	Three Little Pigs Three Billy Goat Gruffs Goldilocks and the Three Bears Roald Dahl's 123 It's not easy being Number Three – Drew Dernavich	Nursey rhyme 'books' to make sequence cards
2	he rainbow fish – Marcus Pfister Brown bear – Bill Martin The colour monster – Anna Llenas Monsters love colors – Mike Austin Mix it up – Herve Tullet Planting a rainbow – Lois Ehlert Elmer – David McKee Which food will you choose? – Claire Potter		Over bear – under where? Julie Hedlund Cat up, Cat down – Catherine Hnatov Rosie's walk – Pat Hutchins We are going on a bear hunt - Michael Rosen
3	That's not my… series A pair of socks – Stuart J Murphy Simon Sock – Sue Hendra Exactly the opposite- Tana Hoban	Pete the Cat and his four groovy buttons (Can children find page number 4 in different books?	Anno's Counting Book Doggies- Sandra Bounton My granny went to the market- Stella Blackstone
4		Counting books but focus on the number 4- Anno's Counting Book	Shapes with Little Fish – Lucy Cousins We are the shapes – Kevin Jenner Bear in a Square – Stella Blackstone Mouse Shapes- Ellen Stoll Walsh
5	Sort it out – Barbara Mariconda Sorting at the market – Tracey Steffora All sorts – Pippa Goodhart & Emily Rand	Counting books but focus on the number 5 - Anno's Counting Book	When I build with blocks – Niki Alling
6		Spots and Dots – Helen bough & Marion Douchars	Consolidation
7	1,2,3 to the zoo – Eric Carle One duck stuck, Phyllis Root	Consolidation	Nibbles Numbers – Emma Yarlett
8		Six Dinner Sid – Inga Moore	Anno's Counting Book – Doggies- Sandra Bounton My granny went to the market- Stella Blackstone Nibbles Numbers – Emma Yarlett
9		Jack and the beanstalk	
10	Pattern Fish – Trudy Harris Beep, Beep, Vroom, Vroom – Stuart J Murphy a book of pattern play- Brian Cleary	How much does a ladybird weigh? Alison Limentani So light, so heavy – Susanne Strasser	Nursey rhyme 'books' – 5 speckled frogs 5 monkeys in a bed etc
11		Goldilocks and the 3 bears A beach for Albert – Deborah Melmon	Master the Curriculum

Reception Coverage - Autumn Term:

	Week 1	Week 2	Week 3	Week 4
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Shape, Space and Measure	Number and Pattern
Maths — No Problem! Strand	Matching	Sorting	Comparing and Ordering	AB Patterns
EYFS Early Learning Goal	Numerical Patterns: Compare quantities up to 10 in different contexts.	Numerical Patterns: Compare quantities up to 10 in different contexts.	Numerical Patterns: Compare quantities up to 10 in different contexts. Explore and represent patterns within numbers up to 10. ... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	Numerical Patterns: Explore and represent patterns within numbers up to 10.
Activities	1. Simple Matching 2. Matching by Function 3. Matching by Number 4. Matching Different Orientations 5. Matching by Other Properties	1. Simple Sorting 2. Sorting Shapes 3. Identifying Sets 4. Finding Sorting Rules 5. Matching Amounts	1. Sort and Compare 2. Ordering from Shortest to Tallest 3. Investigating Height 4. Comparing Lengths 5. Ordering by Time	1. Spotting Patterns Around Us 2. Exploring Abstract Patterns 3. Patterns Using 10 Objects 4. Finding the Unit of Repeat 5. Exploring Non-Linear Patterns
Picture book link	Rosy Red (Matching)	Magic Oven (Sorting)	Magic Oven (Sequencing)	Rosy Red (Patterns)

Reception Coverage - Autumn Term:

	Week 5	Week 6	Week 7	Week 8
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Shape, Space and Measure	Number and Pattern
Maths — No Problem! Strand	Counting	Counting	Time	Composition of Numbers up to Five
EYFS Early Learning Goal	Number: Have a deep understanding of numbers up to 10.	Number: Have a deep understanding of numbers up to 10. Numerical Patterns: Compare quantities up to 10 in different contexts.	Numerical Patterns: Explore and represent patterns within numbers up to 10. ... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	Number: Have a deep understanding of numbers up to 10. Subitise.
Activities	1. Teddy Bears' Picnic 2. Finding 5 3. Counting Teddies and Bees 4. Counting Actions 5. Counting in Five Frames	1. Comparing Numbers of Objects 2. Comparing Numbers 3. Comparing Groups 4. Counting with Towers 5. Identifying Representations of Five	1. Day and Night 2. Ordering Events in the Day 3. Days of the Week 4. Birthdays 5. Making Fruit Caterpillars	1. Exploring Representations of 1 2. Exploring Representations of 2 3. Exploring Representations of 3 4. Exploring Representations of 4 5. Exploring Representations of 5
Picture book link	Magic Oven (Counting to 5)	Magic Oven (Counting to 5)	Rosy Red (Ordering events)	Magic Oven (Numbers to 5)

Reception Coverage - Autumn Term:

	Week 9	Week 10	Week 11	Week 12
Maths — No Problem! Area of learning	Number and Pattern	Shape, Space and Measure	Shape, Space and Measure	Shape, Space and Measure
Maths — No Problem! Strand	Composition of Numbers up to 5	2D Shapes	2D Shapes	Positional Language
EYFS Early Learning Goal	Number: Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5.	Number: Have a deep understanding of numbers up to 10. ... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.
Activities	1. Making 5 2. Identifying 5 3. Constructing Models of 5 4. Breaking Apart 5 5. Making Number Stories with 5	1. Comparing 2D Shapes 2. Comparing Squares and Rectangles 3. Identifying Triangles 4. Identifying Squares 5. Triangles and Squares	1. Identifying Rectangles 2. Making Rectangles 3. Identifying Circles 4. Making Figures using 2D Shapes 5. Making Figures using 2D Shapes (Partner Work)	1. The Greatest Gymnast of All 2. Navigating an Obstacle Course 3. Locating Items in the Classroom 4. Rosie's Walk 5. Finding 2D Shapes in 3D Shapes
Picture book link	Rosy Red (Addition within 5)	This 'n That (2D shapes)	This 'n That (2D shapes)	This 'n That (Combining shapes, positional language)

Reception Coverage - Spring Term:

	Week 1	Week 2	Week 3	Week 4
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Number and Pattern	Number and Pattern
Maths — No Problem! Strand	Counting	Counting and Ordering	Counting	Addition
EYFS Early Learning Goal	Number: Have a deep understanding of numbers up to 10, including the composition of each number.	Numerical patterns: Compare quantities up to 10 in different contexts.	Numerical patterns: Compare quantities up to 10 in different contexts.	Number: Have a deep understanding of numbers up to 10, including the composition of each number.
Activities	1. Zero Book 2. Visualising Zero 3. Zero Game 4. 1 Fewer Than 5. Adding and Subtracting Zero	1. Counting Forwards 2. Counting Backwards 3. Ordering Numbers 4. Position in a Queue 5. Running Races Outdoors	1. Introduce the Five Frame 2. Changing the Amount in the Frame 3. Introduce the Ten Frame 4. Changing the Amount in the Frame 5. Conservation of Number	1. Adding to 5 2. Adding to 10 3. Part Part Whole and Comparison 4. Using a Ten Frame 5. Adding by Counting On
Picture book link	Magic Oven (Counting)	Rosy Red (Counting)	Magic Oven (Five and Ten Frames)	Rosy Red (Counting On)

Reception Coverage - Spring Term:

	Week 5	Week 6	Week 7	Week 8
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Number and Pattern	Number and Pattern
Maths — No Problem! Strand	Comparing and Ordering	Counting	Counting	Patterns
EYFS Early Learning Goal	Numerical patterns: Compare quantities up to 10 in different contexts. Number: Subitise up to 5.	Number: Have a deep understanding of numbers up to 10. 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.	Number: Have a deep understanding of numbers up to 10. 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: Explore and represent patterns within numbers up to 10.
Activities	1. Comparing Quantities of Similar Items 2. Comparing Quantities of Different Sized Items 3. Perceptual and Conceptual Subitising 4. 1 More, 1 Fewer on a Ten Frame and Ordering 5. Conceptual Subitising	1. Sharing 2. Identifying Groups 3. Number Bonds 4. Making 6 – Hidden Objects 5. Making Number Stories	1. Number Bonds to 7 2. Number Bonds to 8 3. Number Bonds to 10 4. Partitioning Into More Than 2 Parts 5. Making Number Stories	1. Recognise and Describe Patterns 2. Extend a Pattern 3. Create a Pattern 4. Spot Mistakes in Patterns 5. Abstract Patterns
Picture book link	Playmates (Subitising, Ordering)	Rosy Red (Number Bonds)	Magic Oven (Making 10)	Rosy Red (Patterns)

Reception Coverage – Spring Term:

	Week 9	Week 10	Week 11	Week 12
Maths — No Problem! Area of learning	Shape, Space and Measure	Shape, Space and Measure	Shape, Space and Measure	Shape, Space and Measure
Maths — No Problem! Strand	Measuring lengths and heights	Capacity - developing language	2D Shapes	3D Shapes
EYFS Early Learning Goal	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.
Activities	1. Non-Standard Units 2. Body Parts 3. Using a Ruler 4. Comparing Heights 5. Estimating and Measuring	1. Empty and Full 2. Empty, Full and Half-Full 3. Empty, Full and Half-Full, Nearly Full and Nearly Empty 4. Comparing Capacity 5. Estimating Capacity	1. Tangram Cat 2. Guess My Shape 3. Find My Shape 4. Describing Shapes 5. Filling a Space	1. Cube 2. Cuboid 3. Cylinder 4. Sphere 5. Creating and Copying 3D Constructions
Picture book link	Playmates (Measuring)	This 'n That (Capacity)	This 'n That (2D shapes)	This 'n That (3D Shapes)

Reception Coverage – Summer Term:

	Week 1	Week 2	Week 3	Week 4
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Number and Pattern	Number and Pattern
Maths — No Problem! Strand	Counting On to Add	Counting Forwards and Backwards	Counting to 20	Doubling
EYFS Early Learning Goal	Numerical patterns: Explore and represent patterns within numbers up to 10; Compare quantities up to 10 in different contexts.	Numerical patterns: Explore and represent patterns within numbers up to 10; Compare quantities up to 10 in different contexts.	Number: Have a deep understanding of number to 10. Numerical patterns: Compare quantities up to 10 in different contexts.	Numerical patterns: Explore and represent patterns within numbers up to 10.
Activities	1. Counting Sequences 2. Counting On from 5 3. Adding On a Ten Frame 4. Counting On from Any Number 5. Counting On from a Hidden Number	1. Counting Backwards 2. Counting Back from 10 3. Finding 1 More and 1 Less 4. Find the Quantity of a Hidden Collection 5. Finding the Unknown Amount	1. Counting to 20 Forwards and Backwards 2. Making Numbers 1–20 3. Different Representations of Numbers 11–20 4. 1 More, 1 Less 5. Ordering Numbers to 20	1. Exploring the Term Double 2. Doubling with Fingers 3. Doubling on a Five Frame to a Ten Frame 4. Recognising Doubles 5. Doubles and Not Doubles
Picture Book link	Magic Oven (Counting On)	Rosy Red (Counting On and Back)	Magic Oven (Counting to 20)	Playmates (Double Numbers)

Reception Coverage - Summer Term:

	Week 5	Week 6	Week 7	Week 8
Maths — No Problem! Area of learning	Number and Pattern	Number and Pattern	Shape, Space and Measure	Shape, Space and Measure
Maths — No Problem! Strand	Halving and Sharing	Odds and Evens	Mass	Volume and Capacity
EYFS Early Learning Goal	Number: Have a deep understanding of number to 10. Numerical patterns: Compare quantities up to 10 in different contexts; Explore and represent patterns within numbers up to 10.	Numerical patterns: Explore and represent patterns within numbers up to 10.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. Numerical patterns: Compare quantities up to 10 in different contexts.	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.
Activities	1. Equal Sharing 2. Halving 3. Halving as the Opposite of Doubling 4. Halving Patterns 5. Sharing Between More Than 2 People	1. Understanding Odd and Even Numbers 2. Finding Odd and Even Numbers 3. Using Ten Frames to Show Odds and Evens 4. Pairs 5. Adding and Subtracting 1	1. Heavy and Light 2. Exploring Mass 3. Comparing Masses 4. Cooking 5. Using Non-Standard Units to Measure Mass	1. Describing Different Volumes of Liquids 2. Finding the Volume of Liquid in a Container 3. Comparing Capacities 4. Capacity of Everyday Objects 5. Quantifying Capacity
Picture Book link	This 'n That (Grouping and Sharing)	This 'n That (Sorting)	Magic Oven (Mass)	This 'n That (Capacity)

Reception Coverage - Summer Term:

	Week 9	Week 10	Week 11	Week 12
Maths — No Problem! Area of learning	Shape, Space and Measure	Number and Pattern	Number and Pattern; Shape, Space and Measure	Number and Pattern
Maths — No Problem! Strand	Money	Data	All	Word Problems
EYFS Early Learning Goal	... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. Number: Automatically recall number bonds up to 5. Numerical patterns: Compare quantities up to 10 in different contexts.	Number: Have a deep understanding of number to 10. Numerical patterns: Compare quantities up to 10 in different contexts; Explore and represent patterns within numbers up to 10.	Developing a strong grounding in number. ... rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.	Developing a strong grounding in number.
Activities	1. Recognising Coins 2. Shopping with Coins 3. Combining Coins 4. Sharing Money Equally 5. Giving Change	1. Pictograms 2. Collecting Data 3. Interpreting Data 4. Recording Data 5. Tally Charts	1. Combinations of Coins 2. Estimating Height 3. Constructing Shapes from 2D Shapes 4. Combinations of Numbers 5. Finding Routes	1. Numberless Word Problems 2. Understanding the Problem 3. Addition Word Problems 4. Subtraction Word Problems 5. Creating Word Problems
Picture Book link	Rosy Red (Addition and Subtraction)	Playmates (Collecting Data)	All four Picture Books can be used to reinforce learning across the strands.	All four Picture Books can be used as a starting point for word problems.