



St Chad's CofE Nursery and Infant School EYFS (Reception) Mathematical Story Spine

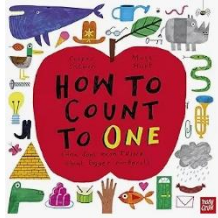
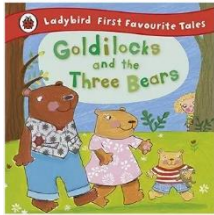
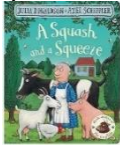
The EEF's 'Improving Mathematics in the Early Years and Key Stage 1' guidance report highlights the importance of providing opportunities throughout the day for children to learn about mathematics, and discuss mathematical ideas to extend thinking. Using storybooks can be one particularly effective way to do this, offering rich opportunities for mathematical talk and questioning. At St Chad's we follow the mastery scheme White Rose. As a school, we have carefully selected appropriate texts for small steps within the programme of learning. Before using each book, we carefully plan how to use the story through identifying

key questions and discussion points, to prompt exploration of the specific mathematical concept being taught. Through using these texts, we are able to contextualise the mathematics being taught; consolidate learning; and develop our children's communication and language skills through quality mathematical talk. Each text and rhyme is used to enhance children's early mathematical understanding and vocabulary.

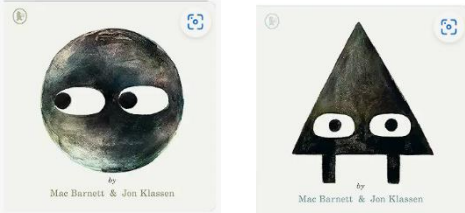
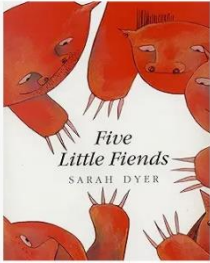
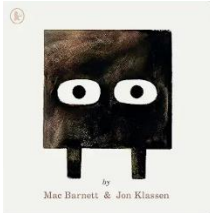
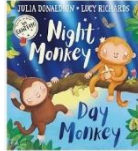
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to know you		Match, sort and compare FREE TRIAL VIEW	Talk about measure and patterns VIEW	It's me 1, 2, 3 VIEW		Circles and triangles VIEW		1, 2, 3, 4, 5 VIEW		Shapes with 4 sides VIEW	
Spring term	Alive in 5 VIEW	Mass and capacity VIEW	Growing 6, 7, 8 VIEW	Length, height and time VIEW	Building 9 and 10 VIEW	Explore 3-D shapes VIEW						
Summer term	To 20 and beyond VIEW	How many now? VIEW	Manipulate, compose and decompose VIEW	Sharing and grouping VIEW	Visualise, build and map VIEW	Make connections VIEW	Consolidation					



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Autumn Term				
Week	Title	Objectives	Key Texts	Nursery Rhyme
3 and 4	Match, Sort and Compare	To match pictures and objects. <i>Rationale: Matching is a simple form of sorting and is the beginning of logical thinking. Through matching, children learn one-to-one correspondence.</i>		
		To sort into groups. <i>Rationale: Sorting objects into groups according to their similarities helps children to learn how to categorise and is a precursor to classifying.</i>		
5 and 6	Talk about measure and patterns	To compare size (mass, capacity and size). <i>Birth to 5: Explores differences in size, length, weight and capacity (Range 4).</i>		
		To explore, copy and create simple patterns. <i>Birth to 5: Explores and adds to simple linear patterns of two or three repeating items (Range 5).</i>		
7 and 8	It's me 1, 2, 3	To find, subitise and represent 1, 2, and 3. <i>Birth to 5: Range 5. Links numerals with amounts up to 5 and maybe beyond Subitises one, two and three objects (without counting)</i>	How to count to one, Casper Salmon  Goldilocks and the Three Bears 	Hickory Dickory Dock Hickory Dickory Dock Super Simple Songs – YouTube Kids
		To solve 1 more and 1 less (to 3). <i>Birth to 5: Range 5 Beginning to recognise that each counting number is one more than the one before Emphasise the one more, one less pattern in rhymes and traditional tales, asking children to predict the next number.</i>	A squash and a squeeze, Julia Donaldson 	Three Little Speckled Frogs Five Little Speckled Frogs featuring The Super Simple Puppets Kids Songs Super Simple Songs – YouTube Kids

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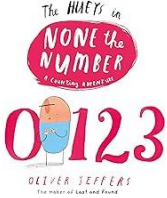
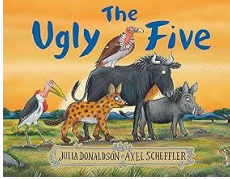
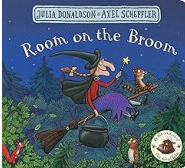
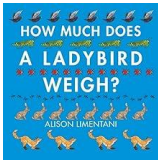
9	Circles and Triangles	<p>To identify and name circles and triangles.</p> <p>Birth to 5: Range 6 <i>Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes.</i></p>	<p align="center">Circle, Mac Barnett Triangle, Mac Barnett</p> 	
10 and 11	1, 2, 3, 4, 5	<p>To find, subitise and represent 1, 2, 3, 4 and 5.</p> <p>Birth to 5: Range 5 <i>Points or touches (tags) each item, saying one number for each item, using the stable order of 1, 2, 3, 4, 5. Links numerals with amounts up to 5 and maybe beyond. Range 6 Engages in subitising numbers to four and maybe five.</i></p> <p>To solve 1 more and 1 less (to 5).</p> <p>Birth to 5: Range 5 <i>Beginning to recognise that each counting number is one more than the one before Positive relationships – Emphasise the one more, one less pattern in rhymes and traditional tales, asking children to predict the next number.</i></p>	<p align="center">Five Little Friends, Sarah Dyer</p> 	<p align="center">1, 2, 3, 4, 5 Once I Caught a Fish Alive</p> <p align="center">Once I Caught A Fish Alive Super Simple Songs – YouTube Kids</p> <p align="center">Five Currant Buns</p> <p align="center">Five Currant Buns in a Baker's Shop! Nursery Rhyme for babies and toddlers from Sing and Learn! – YouTube Kids</p>
12	Shapes with 4 sides	<p>To identify and name shapes with 4 sides.</p> <p>Birth to 5: Range 5 <i>Shows awareness of shape similarities and differences between objects. Range 6 Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes.</i></p> <p>To identify day and night.</p> <p>Birth to 5: Range 6 <i>Is increasingly able to order and sequence events using everyday language related to time.</i></p>	<p align="center">Square, Mac Barnett</p>  <p align="center">Night Monkey, Day Monkey, Julia Donaldson</p> 	<p align="center">This is the way we brush our teeth</p> <p align="center">This Is The Way We Brush Our Teeth Nursery Rhymes for Babies</p>

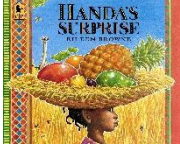
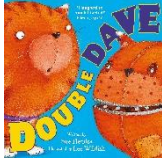
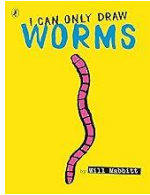
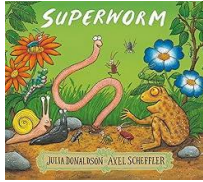


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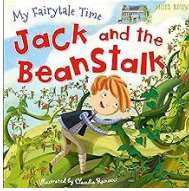
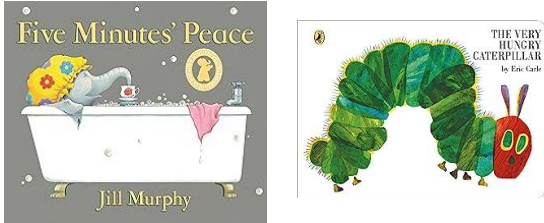



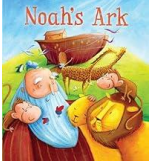

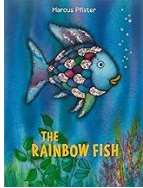
				by LittleBabyBum - ABCs and 123s – YouTube Kids
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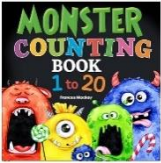
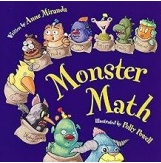
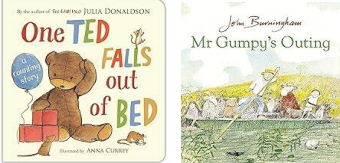
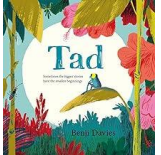

Spring Term				
Week	Title	Objectives	Key Texts	Nursery Rhyme
1 and 2	Alive in 5!	To recognise 0. Birth to 5: <i>Begin to recognise numerals 0 to 10. Links numerals with amounts up to 5 and maybe beyond (Range 5).</i>	Zero is the leaves on the tree, Betsy Franco 	
		To find, represent and subitise numbers 0 – 5. Birth to 5: <i>Begin to recognise numerals 0 to 10. Links numerals with amounts up to 5 and maybe beyond (Range 5)</i> <i>Engages in subitising numbers to four and maybe five (Range 6)</i> <i>Matches the numeral with a group of items to show how many there are (up to 10) (Range 6)</i>	None the Number, Oliver Jeffers 	Five little monkeys jumping on the bed Five Little Monkeys Jumping On The Bed Children Nursery Rhyme Flickbox Kids Songs – YouTube Kids
		To know one more/ one less to 5. Birth to 5: <i>In practical activities, adds one and subtracts one with numbers to 10 (Range 6)</i> <i>Beginning to recognise that each counting number is one more than the one before (Range 5)</i>	The Ugly Five, Julia Donaldson 	
		To explore the composition of 5. Birth to 5: <i>Shows awareness that numbers are made up of (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i>	Room on the Broom, Julia Donaldson 	Five little peas Five Little Peas with Lyrics - Nursery Rhyme – YouTube Kids
3	Mass and Capacity	To compare mass. Birth to 5: <i>Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy. Becomes familiar with measuring tools in everyday experiences and play (Range 6)</i>	How much does a ladybird weigh? Alison Limentani 	
		To find a balance. Birth to 5: <i>as above (to compare mass)</i>		

		<p>To explore and compare capacity. <i>Birth to 5: Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy. Becomes familiar with measuring tools in everyday experiences and play (Range 6)</i></p>		
4 and 5	Growing 6, 7, 8	<p>To find and represent 6, 7 and 8. <i>Birth to 5: Uses number names and symbols when comparing numbers, showing interest in large numbers. Estimates of numbers of things, showing understanding of relative size. Counts out up to 10 objects from a larger group (Range 6).</i></p>	<p>Handa's Surprise, Eileen Browne</p> 	<p>One potato, two potato One Potato, Two Potatoes Super Simple Songs – YouTube Kids</p>
		<p>To find one more/ one less to 8. <i>Birth to 5: In practical activities, adds one and subtracts one with numbers to 10 (Range 6)</i></p>		<p>One man went to mow a meadow Counting Songs - One Man went to Mow a Meadow – YouTube Kids</p>
		<p>To double numbers to 8. <i>Birth to 5: Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i></p>	<p>Double Dave, Sue Hendra</p> 	
		<p>To combine 2 groups together. <i>Birth to 5: Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i></p>		
6 and 7	Length, height and time	<p>To explore and compare length. <i>Birth to 5: Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy. Becomes familiar with measuring tools in everyday experiences and play. (Range 6)</i></p>	<p>I can only draw worms, Will Mabbitt Super worm, Julia Donaldson</p>  	

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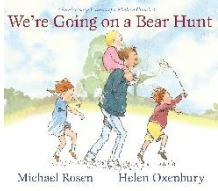

		<p>To explore and compare height. Birth to 5: <i>Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy. Becomes familiar with measuring tools in everyday experiences and play. Becomes familiar with measuring tools in everyday experiences and play (Range 6)</i></p>	<p style="text-align: center;">Jack and the Beanstalk</p> 	
		<p>To order/ sequence time. Birth to 5: <i>Is increasingly able to order and sequence events using everyday language related to time. Beginning to experience measuring time with timers and calendars (Range 6)</i></p>	<p style="text-align: center;">Five Minutes Peace, Jill Murphy The Very Hungry Caterpillar, Eric Carle</p> 	<p style="text-align: center;">Days of the Week Days of the Week Song The Singing Walrus – YouTube Kids</p>
<p>8, 9 and 10</p>	<p>Building 9 and 10</p>	<p>To find, compare, represent and subitise numbers to 10. Birth to 5: <i>Uses number names and symbols when comparing numbers, showing interest in large numbers. Estimates (of) numbers of things, showing understanding of relative size. Counts out up to 10 objects from a larger group. Counts out up to 10 objects from a larger group (Range 6).</i></p>	<p style="text-align: center;">The Ten Little... Series, Mike Brownlow</p> 	<p>Ten currant buns Five Currant Buns in a Baker's Shop! Nursery Rhyme for babies and toddlers from Sing and Learn! – YouTube Kids</p>
		<p>To know one more/ one less to 10. Birth to 5: <i>In practical activities, adds one and subtracts one with numbers to 10. Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0. Increasingly confident at putting numerals in order 0 to 10 (ordinality) (Range 6).</i></p>		<p>Ten green bottles Ten Green Bottles Nursery Rhymes Recycle Songs – YouTube Kids</p>
		<p>To explore the composition of numbers up to 10. Birth to 5: <i>Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i></p>		<p>Jack Hartmann I Know My Number Bonds 10 Number Bonds to 10 Addition</p>
		<p>Number bonds to 10 (2 parts and 3 parts). Birth to 5: <i>Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i></p>		

				Song for Kids Jack Hartmann – YouTube Kids
		<p>To find and make doubles to 10. <i>Birth to 5: Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects (Range 6)</i></p>	<p>Noah's Ark</p> 	
11 and 12	Exploring 3-D Shapes	<p>To recognise and name 3-D shapes. <i>Birth to 5: Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) (Range 6)</i></p>	<p>Tangled, Anne Miranda</p> 	
		<p>To identify, copy and continue patterns. <i>Birth to 5: Spots patterns in the environment, beginning to identify the pattern "rule". Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat (Range 6)</i></p>	<p>The Rainbow Fish, Marcus Pfister</p> 	

Summer Term				
Week	Title	Objectives	Key Texts	Nursery Rhyme
1 and 2	To 20 and beyond	To build/continue patterns with numbers beyond 10. <i>Birth to 5: Uses number names and symbols when comparing numbers, showing interest in large numbers. Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 (Range 6)</i>	Monster Counting Book, Frances Mackay 	Dream English Kids Let's Count to 20 Song For Kids (youtube.com)
		To count beyond 20 (verbally). <i>Birth to 5: Uses number names and symbols when comparing numbers, showing interest in large numbers. Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0. Increasingly confident at putting numerals in order 0 to 10 (ordinality) Range 6</i>	Monster Math, Anne Miranda 	
3	How many now?	To add more. <i>Birth to 5: In practical activities, adds one and subtracts one with numbers to 10. Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-" (Range 6)</i>	Mr Gumpy's Outing, John Burningham 	Ten Green Bottles Ten Green Bottles Nursery Rhymes Recycle Songs (youtube.com)
		To take away. <i>Birth to 5: In practical activities, adds one and subtracts one with numbers to 10 (Range 6)</i>	Tad, Benji Davies 	Ten Currant Buns Five Currant Buns in a Baker's Shop! Nursery Rhyme for babies and toddlers from Sing and Learn! (youtube.com)
4 and 5	Manipulate, compose and decompose	To rotate and manipulate shapes. <i>Birth to 5: Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) (Range 6)</i>	The Perfect Fit, Naomi Jones 	

		<p>To compose and decompose shapes. <i>Birth to 5: Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes (Range 6)</i></p>	<p>Jack and the Flumflum Tree, Julia Donaldson Perfect Square, Michael Hall</p>	
6 and 7	Sharing and Grouping	<p>To share. <i>Birth to 5: Estimates of numbers of things, showing understanding of relative size. Counts out up to 10 objects from a larger group.</i></p>	<p>The Squirrels who Squabbled, Rachel Bright</p>	
		<p>To group. <i>Birth to 5: Estimates of numbers of things, showing understanding of relative size. Counts out up to 10 objects from a larger group.</i></p>	<p>Ness the Nurse, Nick Sharratt</p>	
		<p>To build doubles. <i>Birth to 5: Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects.</i></p>	<p>Alison Hubble, Alan Ahlberg</p>	
8, 9 and 10	Visualise, build and map	<p>To identify, create and explore patterns. <i>Birth to 5: Spots patterns in the environment, beginning to identify the pattern "rule". Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat.</i></p>	<p>Pattern Fish, Trudy Harris</p>	

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		<p>To visualise and describe positions. <i>Birth to 5: Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints.</i></p>	<p>We're Going on a Bear Hunt, Michael Rosen</p>  <p style="text-align: center;"><small>Michael Rosen Helen Oxenbury</small></p>	<p>The Bear Went Over the Mountain The Bear Went Over The Mountain + More Kids Songs Super Simple Songs (youtube.com)</p>
		<p>To explore, represent and create maps. <i>Birth to 5: Understand position through words alone – for example, "The bag is under the table," – with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'. May enjoy making simple maps of familiar and imaginative environments, with landmarks.</i></p>	<p>What the Ladybird Heard, Julia Donaldson The Gruffalo, Julia Donaldson</p> 	
11	Make connections	<p>Deepening Understanding. <i>Making connections between all the aspects of maths that have been covered through the year. In this small step, we look at deepening this understanding through developing children's reasoning and problem-solving strategies.</i></p>	<p>Mr Gumpy's Outing, John Burningham</p> 