Reception Maths Medium Term Plan – Autumn 1

How is Maths taught in Reception?

Self registration – children add picture to tens frames. How many children are here? How many children are away?

Date – days of the week song, count up to the date number.

Daily nursery rhymes – number links

Daily Maths lesson (from week 4) – Review, Teach, Practise in groups, Apply
3x Number
2x Shape, Space, Measures

Number Sense – 5 mins daily (from week 2)

Maths opportunities within the environment as part of continuous and enhanced provision

Mathematics				
Number				
Getting to know children and, through their play, assessing children's ability to: Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. Experiment with their own symbols and marks as well as numerals. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Identify which group has the largest/smallest amount. Identify which group has most/more and least/less. Put two groups of objects together and count them to find the total amount. Solve simple real world mathematical problems with numbers up to 5 with apparatus and support.	Count objects, actions and sounds. 1:1 correspondence to 10 **Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').**	Link numerals and amounts: for example, showing the right number of objects to match the numeral (numbers to 3) ***Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').***	Link numerals and amounts: for example, showing the right number of objects to match the numeral, (numbers to 5). ***Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').***	More than / less than Identifying groups with the same number of things Compare quantities using language: 'more than', 'fewer than'.
Numerical Patterns				
Getting to know children and, through their play, assessing children's ability to:	Begin to describe a sequence of events, real		Make their own AB pattern (stick, leaf, stick, leaf…)	

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Copy and continue an AB pattern Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.	or fictional, using words such as 'first', 'then...' ***Link to sequencing events from the story***		Spotting an error in an AB pattern Identifying the unit of repeat ***Link to patterns in the story***	
Spatial Awareness				
Getting to know children and, through their play, assessing children's ability to: Name some familiar shapes. Beginning to select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Understand position through words alone – for example, "The bag is under the table," – with no pointing.		Talk about and explore 2D shapes (squares, circles, triangles, rectangles) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.		Describe the position of something ('Where is the teddy? 'On top of the table.')

Week	Focus Skills and Knowledge	Link to End of Year Objectives	Possible activities	Enhancements	Key vocabulary
1 2 3	*Getting to know children and, through their play, assessing children's ability to:* Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. Experiment with their own symbols and marks as well as numerals. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Identify which group has the largest/smallest amount. Identify which group has most/more and least/less. Put two groups of objects together and count them to find the total amount.		Interactions within the environment – lots of opportunities to explore manipulatives in different ways. Opportunities to explore number, shape, pattern, measures within the environment – indoor and outdoor continuous provision. Counting songs and rhymes Counting games – hopscotch, games with a dice Hide and seek – using positional language		

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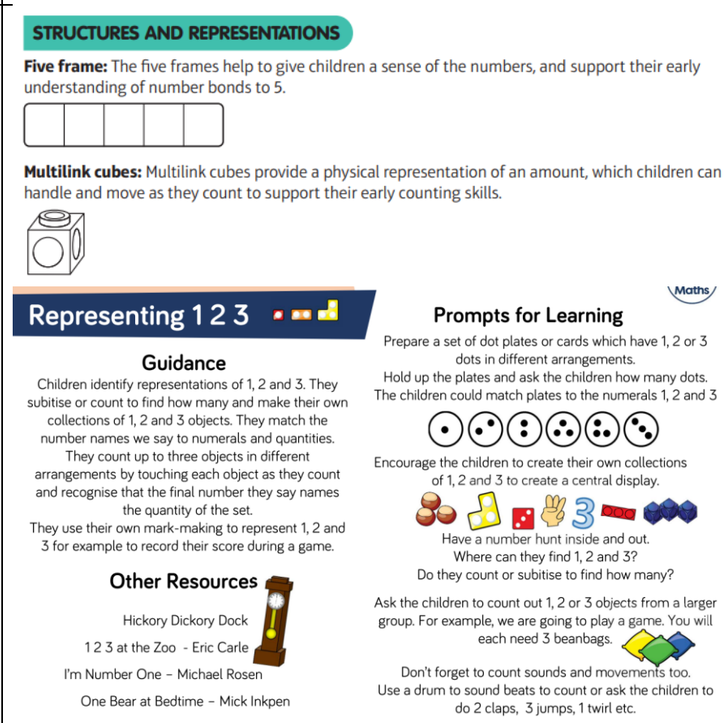
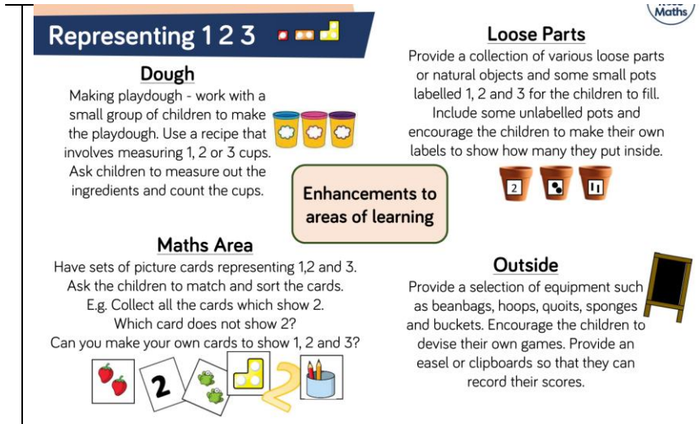
	Solve simple real world mathematical problems with numbers up to 5 with apparatus and support. Copy and continue an AB pattern Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. Name some familiar shapes. Beginning to select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Understand position through words alone – for example, "The bag is under the table," – with no pointing.				
4	Count objects, actions and sounds. 1:1 correspondence to 10 **Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').** Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' ***Link to sequencing events from the story***	Have a deep understanding of number to 10, including the composition of each number Subitise (recognise quantities without counting) up to 5			1,2,3,4,5, one, two, three, four, five number count – count forwards, count backwards how many? total altogether five frame cube same different arrange first then before after next finally

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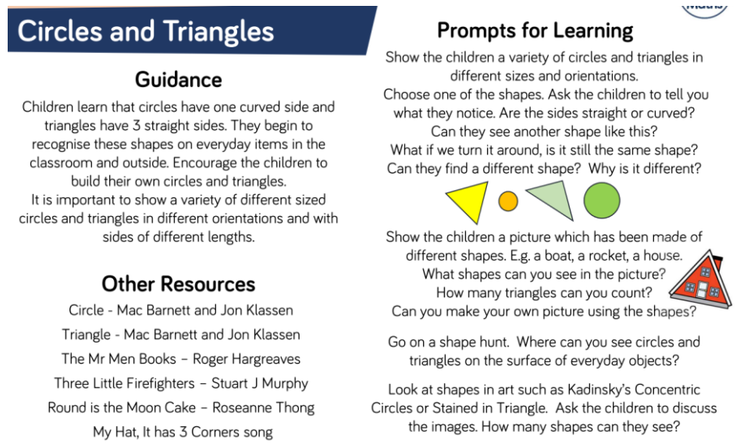
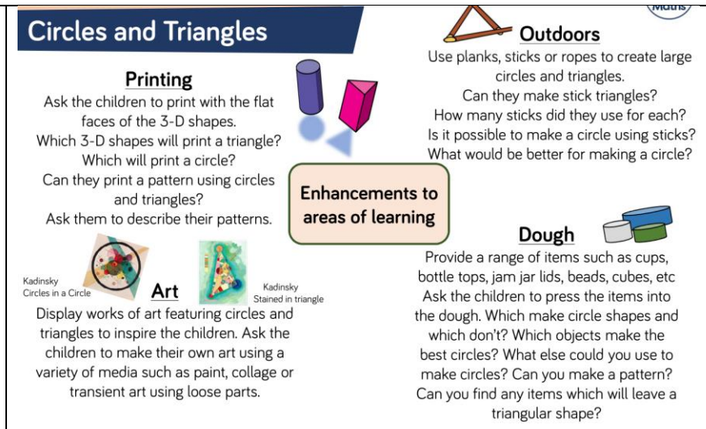
5	Link numerals and amounts: for example, showing the right number of objects to match the numeral (numbers to 3) ***Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').*** Talk about and explore 2D shapes (squares, circles, triangles, rectangles) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Make their own AB pattern (stick, leaf, stick, leaf…) Spotting an error in an AB pattern Identifying the unit of repeat (link to shapes)	Have a deep understanding of number to 10, including the composition of each number Subitise (recognise quantities without counting) up to 5	 **Power Maths Unit 1 – Numbers to 5** **Power Maths Unit 3 – Shape (2D shapes)**		1,2,3,4,5, one, two, three, four, five number count – count forwards, count backwards how many? total altogether five frame cube same different arrange corners sides circle triangle big little flat pointy straight curved

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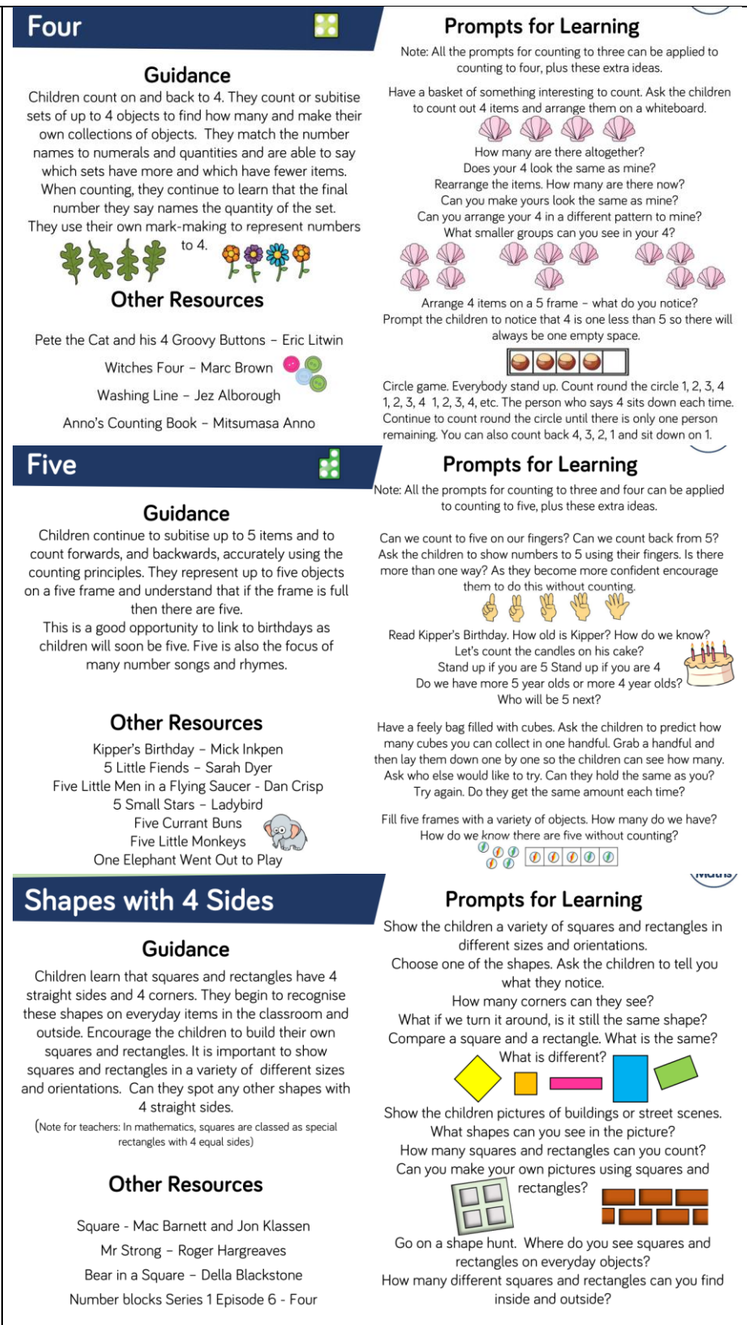
6	Link numerals and amounts: for example, showing the right number of objects to match the numeral, (numbers to 5). ***Developing fast recognition of up to 3 objects, without having to count them individually ('subitising').*** Talk about and explore 2D shapes (squares, circles, triangles, rectangles) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Make their own AB pattern (stick, leaf, stick, leaf…) Spotting an error in an AB pattern Identifying the unit of repeat (link to shapes) ***Link to patterns in the story***	Have a deep understanding of number to 10, including the composition of each number Subitise (recognise quantities without counting) up to 5	 **Power Maths Unit 3 – Shape (2D shapes)**		1,2,3,4,5, one, two, three, four, five number count – count forwards, count backwards how many? total altogether five frame cube same different arrange corners sides square rectangle big little flat pointy straight curved long short

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7	More than / less than Identifying groups with the same number of things Compare quantities using language: 'more than', 'fewer than'. Describe the position of something ('Where is the teddy? 'On top of the table.')	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	**Power Maths Unit 2 – Comparing groups within 5** **Comparing 1 2 3** **Guidance** Children begin to understand that as we count, each number is one more than the number before. Similarly as we count back, each number is one less than the previous number. Use a range of representations to support this understanding and encourage the children to represent the one more and one less patterns as they count. Support the children to make comparisons in different contexts as they play. **Other Resources** The Three Bears The Three Little Pigs The Little Bear and the Wish Fish – Debi Gliori When Goldilocks Went to the House of the Bears song Pink Tiara Cookies for Three – Maria Dismondy **Prompts for Learning** Use stories and number songs which count on and back to introduce the one more and one less patterns. Represent the patterns using bricks or cubes to support the understanding that each number is one more/less than the number before. Using a range of real objects in different contexts ask the children to compare sets. Which set has more? Fewer? Can you find 2 sets with the same amount? The dot plates can also compared and ordered. Ask: How many dots does this plate have? Can you find a plate with more dots? With fewer dots? With the same number of dots? Can you put these 3 plates in order? What would come next? Ask the children to compare how far they can travel in 3 giant steps and in 1 or 2. In 1, 2 and 3 tiptoes. **Comparing Numbers to 5** **Guidance** Children continue to understand that when comparing numbers, one quantity can be more than, the same as or fewer than another quantity. Use a range of representations to support this understanding and encourage the children to compare quantities using a variety of objects and representations. Support the children to make comparisons in different contexts as they play. **Other Resources** A Squash and a Squeeze – Julia Donaldson Room on the Broom – Julia Donaldson One Elephant Came Out to Play 5 Little Monkeys Swinging in a Tree **Prompts for Learning** Show the children 3 fingers – ask them how many fingers? Can they hold up 3? Can they hold up more than 3 fingers? Is there more than one way to do this? Can they hold up fewer than 3 fingers? How many do they have? Working with a small group, provide each child with a plate and give them each a handful of snack such as grapes or crackers. Does everyone have the same? Is it fair? Encourage them to notice that some children have more snack and some have less and to share out the snack fairly. Can they check that everyone now has the same? Provide opportunities to compare smaller quantities of large items with larger quantities of small items to help children make the distinction between size and quantity. E.g. 2 large balls take up more space than 3 small balls but there are more small balls. **Spatial Awareness** **Guidance** Children hear and begin to use positional language to describe how items are positioned in relation to other items. They build life-sized journeys outdoors and travel through them, exploring them from different perspectives. They begin to represent real places they have visited or places in stories with their models, drawings or maps. **Other Resources** We're Going on a Bear Hunt - Michael Rosen Rosie's Walk - Pat Hutchins Little Red Riding Hood - Traditional Tale Mrs Wishy-Washy - Joy Cowling Me on a Map - Joan Sweeney Song: In and Out the Dusty Bluebells **Prompts for Learning** Positional language can be modelled and practised on a daily basis with the children through their play. Tidy-up time in particular is full of opportunities to use positional language for a real purpose. E.g. Put the bricks into the basket. Sit teddy on the shelf **next to** the books. Many stories focus on positional language or journeys. Encourage the children to use actions to represent the language such as over, under, around, through as you read. Children could also build models of the story journeys and real life journeys they have made to include the places passed or visited along the way. Outside the children can build large-scale representations of places and journeys.	**Comparing 1 2 3** **Loose Parts** Provide an assortment of loose parts for the children to build their own one more/one less patterns. The children may like to extend these beyond 3 **Maths Area** Game for 2 players: Provide picture cards showing different representations of 1, 2 and 3. Place the picture cards face down. Ask each player to pick a card and then compare to see which card has more. The player with more keeps both cards. **Enhancements to areas of learning** **Maths Area** Teach the children simple number track games and encourage them to create their own. Roll a dice and collect 1, 2 or 3 counters to fill their track. Compare – who has the most counters? How many more counters do they need to fill their track? **Role Play** Read children the story of the 3 bears and explain that we need to set the table in the home corner ready for breakfast. Do we have enough plates, cups and spoons for all the bears? Provide small, medium and large cups, bowls and spoons to compare and match to the bears. **Comparing Numbers to 5** **Sand** Make towers of pebbles. Who can make the tallest tower? How many pebbles are in each tower? Does your tower have more or less pebbles than your friend's tower? Can you each make a tower using the same number of pebbles? **Enhancements to areas of learning** **Maths Area** Children use the number shapes, linking cubes and numeral cards to match and compare quantities. Provide a set of dominoes to explore. Ask the children to compare the number of spots on each side of the domino. Are there the same, more or fewer dots? **Carpet** Provide a set of dot plates with different arrangements of 0-5 dots. Can you find a plate with 4 dots? With more/fewer than 4 dots? Can you put the plates in order? One of the plates is missing. Can you work out which one? **Small World** Provide children with the numbers 1 – 5 on cards and various small, similar items such as people, toy cars, plastic animals, etc. Ask them to show you fewer, the same or more than the number they choose. **Spatial Awareness** **Small World** Modelling and encouraging positional language as the children play in the small world. E.g. 'Where shall we put the horse?' 'We'll put it in the field behind the tree.' 'Where is the frog?' 'The frog is on the chair beside the window.' **Enhancements to areas of learning** **Outdoors** Set up an obstacle course around the outdoor area. Ask the children to work in pairs – one giving directions to their partner. E.g. 'Go over the bridge, through the tunnel, around the cones, between the bricks…' Encourage the children to create their own obstacle courses. **Outdoors** Set up your own bear hunt by hiding bears around the outdoor area. Ask the children to describe where they could look and where each bear was found. You could extend this into everyday practice by having a bear which 'hides' in a different place in the classroom every night for the children to find. **Reading** As you read together, take the opportunity to build in positional language. Many stories (Janet & Allan Ahlberg - Each Peach Pear Plum, Quentin Blake - Cockatoos) involve pictorial hide and seek. Ask the children to find the hidden objects and to describe where they are. © White Rose Maths	1,2,3,4,5, one, two, three, four, five, none, zero number count – count forwards, count backwards how many? five frame first then now one less one more order fewer take away add altogether number story five frame represent where on top under next to underneath above at the side of