Dereham Church of England Infant and Nursery School- Mathematics

	Year group: Reception	Area/topic: Mathematics- how many now?
	Development Matters – Reception – Automatically recall number bonds for numbers 0-5 and some to 10. Birth to 5 Matters – Range 6 – In practical activities, adds one and subtracts one with numbers to 10 Birth to 5 Matters – Range 6 – Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"	

Prior learning	Future learning
Children will have knowledge of 1 more and 1 less, number bonds to 10 and number doubles.	Children will apply this knowledge during daily maths meetings

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence
Add more	Ask children to show you 5 fingers. Now show 2 more. How many fingers are showing now? How do you know there are 7? Extend this by showing children a numeral card and asking them to represent the number on a ten frame with double-sided counters all on the same coloured side. Prompt them to add 3 more, representing this using the other side of the double-sided counters. How many are there altogether? Repeat this with different numbers.

How many did I add?	Use 'first, then, now' to tell simple number stories to practise adding more in real-life contexts. Set up a bus and bus stops and prompt children to say the story out loud to match the context. For example, "First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus." Read stories such as Mouse Count by Ellen Stoll Walsh with children, which demonstrate adding more than one. Enact 'first, then, now' stories using props linked to the story. For example, "First there were 3 mice in the jar. Then the snake added 2 more mice. How many mice are in the jar now?" Count out 5 cubes. Ask children to check how many there are. Cover the cubes with a cloth. Then, add a hidden number of cubes under the cloth. Show children how many cubes there are now. Challenge them to work out how many cubes were added, using their fingers or mark-making In pairs, one child selects a numeral card and collects that number of cubes. The other child selects another numeral card and, without showing their partner, they add that number of cubes to the pile. 5 Their partner must work out

	what number is on the hidden card by finding how many cubes were added In pairs, one child selects a numeral card and collects that number of cubes. The other child selects another numeral card and, without showing their partner, they add that number of cubes to the pile. 5 Their partner must work out what number is on the hidden card by finding how many cubes were added. After reading stories such as Mr Gumpy's Outing by John Burningham, encourage children to play the characters from the story. Have some children in the boat and ask the other children to shut their eyes. Secretly tap some of these, who join the boat without the others seeing. Then ask everyone to open their eyes. How many children are in the boat now? How many were added? In the context of the song Ten Green Bottles, tell children a 'first, then, now' story where the first part is missing. For example, "We don't know how many bottles were on the wall, but then 3 more were added and now there are 10 altogether." Encourage children to use a ten frame and counters to work out how many bottles there were at the start.

Take away	Ask children to show you 5 fingers and then show you 4 f ingers by putting one finger or thumb down. Prompt them to notice that 1 less is the same as taking away one. Repeat this and encourage children to notice how many are left each time. Extend this by showing children a numeral and asking them to represent that number on a ten frame with counters. Then ask them to take away 3 counters. How many are left? Repeat with different numbers. Encourage children to act out rhymes such as Ten Currant Buns and adapt them so that more than one bun is taken away each time. Prompt children to use props to find how many are left. They could also represent the 'first, then, now' story using cubes or counters on a ten frame. In pairs, children play a game of 'pirate treasure'. Pick a numeral card and count out the corresponding number of gold coins or loose parts. One child covers their eyes while their partner 'steals' some of the coins and hides them. 6 The first child has to work out how many coins have been stolen. Children could count on or use double sided counters to support them.

How many did I take away?	After reading stories such as Splash! by Ann Jonas with children, set up a small-world scene with characters linked to the story. Encourage children to act out 'first, then, now' stories where characters are taken away. Following this, they could be prompted to create their own number stories. Encourage children to talk about how many characters are left each time. After reading stories such as The Shopping Basket by John Burningham with children, enact scenes from the story but adapt them so that more than one item is secretly taken away. Model using towers of cubes to work out how many were taken away. Start by building a tower to represent the starting number. Take away cubes until you represent the number of items you have left. How many cubes were taken away? Use simple 'first, then, now' number stories to practise taking away in real-life contexts. Act out the 'first, then, now' story by setting up a train in the outdoor area. Ask some children to close their eyes and then prompt other children to get on the train. How many children are left at the station? How many have gone?

	As children are playing in the small-world area, encourage them to create their own 'first, then, now' stories. In pairs, they act out these number stories using props. 8 Have numeral cards available for children to select as starting numbers for their number stories. Then one child takes away some of the objects while their partner closes their eyes. Their partner then works out how many were taken In the context of the song Ten Little Ducks, tell children a 'first, then, now' story where the first part is missing. For example, "We don't know how many ducks there were to start with, then 3 swam away and now there are 7 ducks left." Encourage children to use a ten frame and different coloured counters to represent how many there are now and how many were taken away.

Key vocabulary	
First, then, now, first, altogether, how many now?	
Common misconceptions	Books linking to this area

In this small step, children build on their understanding as they explore the change structure of addition (augmentation) by adding more. The focus for this step is on increasing a quantity by a given amount, while continuing to work within 10 Children will use real objects to see that the quantity of a group can be changed by adding more. The 'first, then, now' structure is a very effective way to help build their understanding by creating mathematical stories in meaningful contexts. At first, children may need to re-count all the items (for example, 1, 2, 3, 4, 5, 6, 7) to see how many they have altogether. When they are ready, support them to count on instead (for example, 4, 5, 6, 7) Encourage children to use real objects to see that the quantity of a group can be changed by taking some away. Prompt them to remove the items and then count or subitise to see how many are left. The 'first, then, now' structure is an effective way to help build their understanding by creating mathematical stories in meaningful contexts, using ten frames, number tracks and their fingers.	Mouse Count by Ellen Stoll Walsh One Ted Falls out of Bed by Julia Donaldson My Granny Went to Market by Stella Blackstone Mr Gumpy's Outing by John Burningham Splash! by Ann Jonas Tad by Benji Davies The Shopping Basket by John Burningham
Memorable first hand experiences	Opportunities for communication
Many opportunities to play games. Regular use of a range of manipulatives, loose parts, natural objects etc.	Ask and discuss the key questions provided by White Rose Discuss, share and repeat the sentence stems provided by White Rose

DCINA Reasonable adjustments for pupils with SEND

Communication and Interaction	Cognition and Learning
Use a range of visual aids Give clear instructions one at a time Repetition Provide simple instructions Pre teach vocabulary Use working wall where modelling is displayed Give children thinking time Model task	Check understanding regularly Allow rest breaks Give thinking time Colour code signs that could be confusing Work checklists Break down tasks into small steps Give opportunities for over-learning

Social, Emotional and Mental health	Sensory and Physical
Allow access to a quiet and calm space Give child a special role to increase self esteem Provide a visual support- what to do if you are stuck Provide a movement break Seat pupil by more confident peer Now and next board Sand timers Movement breaks Break down tasks into small steps	Consider carpet space position Reduce background noise Provide a range of manipulatives- dienes may be too small Appropriate seating Wobble boards Writing slope Enlarge text Variety of writing tools available