

Dereham Church of England Infant and Nursery Academy- Mathematics

	Year group: Reception Development Matters – Reception Count objects, actions and sounds. Link the number symbol (numeral) with its cardinal number value. Reception – Understand the ‘one more than/one less than’ relationship between consecutive numbers. Reception – Explore the composition of numbers to 10 Reception – Subitise. Birth to 5 Matters – Range 6 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 – In practical activities, adds one and subtracts one with numbers to 10 Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Range 6 – Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three	Area/topic: Mathematics- Growing 6, 7, 8
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Prior learning	Future learning
At the beginning of the term children completed a block where they studied numbers up to 5	Children will use this learning and develop this when focussing on numbers 9 and 10 later this term

What pupils need to know or do to be secure

Key knowledge and skills	Possible evidence
Find 6, 7 and 8	After reading stories such as <i>Handa's Surprise</i> by Eileen Browne, provide different pieces of fruit in the snack area. Encourage children to make their own baskets of fruit to show 6, 7 and 8 Prompt them to describe their collections
Represent 6, 7 and 8	Hold up a dot plate showing 6, 7 or 8 dots. Prompt children to represent this number on their ten frame using counters. Encourage them to compare their ten frame to their partner's. Do they look the same?
1 more	Read stories such as <i>Six Dinner Sid</i> by Inga Moore. Use children and props to act out the story. Encourage children to represent how many dinners Sid has eaten each time using counters on a ten frame
1 less	Count out six cubes with children and then cover them up so they cannot be seen. Keep the cubes covered but tell children that you are taking away one cube. Ask children how many there are now. What if we take two cubes away? Encourage children to mark-make to help them to solve the problem.
Composition of 6, 7 and 8	Give children 6, 7 or 8 beanbags. Ask them to throw the beanbags into a bucket. Prompt them to say how many landed outside the bucket. Without looking inside, encourage children to say how many must have landed inside the bucket

Make pairs - odd and even	Read stories such as Simon Sock by Sue Hendra and Paul Linnet. Model making pairs with objects such as socks and prompt children to understand that a pair means we have two. Children can make pairs that match or that do not match. Provide opportunities for them to explore what happens when we have an even or an odd number of socks.
Double to 8 (find a double)	Show children images that represent doubles and not doubles. Prompt children to tell you if the representation shows a double or not. How do they know?
Double to 8 (make a double)	Provide butterfly templates and ask children to use tweezers to place pom-poms on to the wings. Prompt them to make doubles by adding the same number of pom-poms to each side. How many different doubles can they make?
Combine two groups	Provide a set of dominoes that include all those with a total of up to 8 spots. Also provide a 'car park' with numbered spaces. 0 1 2 3 4 5 6 7 8 Prompt children to take it in turns to select a domino and to find the total number of spots. They then place the domino in the correct parking space.
Conceptual subitising	Provide children with different dot arrangements and two different coloured pens. Prompt them to draw around the dots to show two groups. Is there more

	than one way to do this? Children could also show more than two groups
Key vocabulary	
Altogether, more than, less than, part, whole, odd, even, pair, double, group,	
Common misconceptions	Books linking to this area
To further develop children's understanding of cardinality, support them to know when to stop counting and that the number they say is the total number of objects in the set. Remind children to fill the ten frame in the five-wise pattern from left to right, so they can see the '5 and a bit' structure. To consolidate the stable order principle, prompt children to recognise that the order of the numbers does not change when we count back. Encourage children to arrange quantities into pairs and to notice that some quantities will have an odd one left over with no partner.	Handa's Surprise by Eileen Browne Sidney the Silly Who Only Eats 6 by M.W. Penn Six Dinner Sid by Inga Moore Kipper's Toybox by Mick Inkpen Simon Sock by Sue Hendra Missing Mittens by Stuart J. Murphy Noah's Ark Double Dave by Sue Hendra Two of Everything by Lily Toy Hong Don't Forget the Bacon! by Pat Hutchins The Snail and the Whale by Julia Donaldson
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

<i>Communication and Interaction</i> 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	<i>Cognition and Learning</i> 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
<i>Social, Emotional and Mental health</i> 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	<i>Sensory and Physical</i> 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