

Dereham Church of England Infant and Nursery Academy- Mathematics

	Year group: Reception	Area/topic: Mathematics-Talk about measure and patterns
	Development Matters - 3 and 4-year-olds - Make comparisons between objects relating to size, length, weight and capacity. Birth to 5 Matters - Range 4 - Explores differences in size, length, weight and capacity. Birth to 5 Matters - Range 5 - In meaningful contexts, finds the longer or shorter, heavier or lighter and more/ less full of two items. Birth to 5 Matters - Range 5 - Explores and adds to simple linear patterns of two or three repeating items. Joins in with simple patterns in sounds, objects, games and stories, dance and movement, predicting what comes next. Development Matters - Reception - Continue, copy and create repeating patterns. Birth to 5 Matters - Range 5 - Creates their own spatial patterns showing some organisation or regularity.	

Prior learning	Future learning
Children may have been exposed to a basic element of repeating patterns at home and at Nursery	Children will continue to spot patterns in their everyday lives.

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence
Compare size	Opportunities to participate in a range of games includes ones that children are provided

Compare mass	with an item and have to find a friend with a larger item, a smaller item etc.
Compare capacity	Time to explore and experiment with balance scales and playdough and a range of other items
Explore simple patterns	Photos of children exploring different containers and coloured water
Copy and continue simple patterns	Re-enacting 'We're going on a bear hunt' reciting the repeating phrases
Create simple patterns	Photographs of children being provided a pattern with natural objects and having to continue the pattern
Key vocabulary	
Big, little, Bigger, smaller, larger, taller, longer, shorter, heavier, lighter, mass, weight, more, most, less, least, same, pattern,	

Common misconceptions	Books linking to this area
Children may be more familiar with the word 'weight' instead of mass, there is no harm in using the words interchangeably at this stage. When introducing balance scales, children should develop the understanding that the heavier object is lower on the balance scale and the lighter object is higher. It is important to model this to children and point out that the objects have the same mass if the scale is balanced. To avoid misconceptions, give children the opportunity to explore large objects that are light and small objects that are heavy. When showing and modelling patterns to children, ensure that there are three full units of repeat for them to be able to copy and continue. Ensure that children are exposed to visual patterns that build both vertically and horizontally.	Where's My Teddy? by Jez Alborough It's the Bear! by Jez Alborough The Blue Balloon by Mick Inkpen Dear Zoo by Rod Campbell My First Book of Patterns by Bobby and June George We're Going on a Bear Hunt by Michael Rosen A-B-A-B-A - A Book of Pattern Play by Brian P. Cleary
Memorable first hand experiences	Opportunities for communication
Making fruit kebabs, completing a large array of activities using 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> <i>Use a range of visual aids</i> <i>Give clear instructions one at a time</i> <i>Repetition</i> <i>Provide simple instructions</i> <i>Pre teach vocabulary</i> <i>Use working wall where modelling is displayed</i> <i>Give children thinking time</i> <i>Model task</i>	<i>Cognition and Learning</i> <i>Check understanding regularly</i> <i>Allow rest breaks</i> <i>Give thinking time</i> <i>Colour code signs that could be confusing</i> <i>Work checklists</i> <i>Break down tasks into small steps</i> <i>Give opportunities for over-learning</i>
<i>Social, Emotional and Mental health</i> <i>Allow access to a quiet and calm space</i> <i>Give child a special role to increase self esteem</i> <i>Provide a visual support- what to do if you are stuck</i> <i>Provide a movement break</i> <i>Seat pupil by more confident peer</i> <i>Now and next board</i> <i>Sand timers</i> <i>Movement breaks</i> <i>Break down tasks into small steps</i>	<i>Sensory and Physical</i> <i>Consider carpet space position</i> <i>Reduce background noise</i> <i>Provide a range of manipulatives- dienes may be too small</i> <i>Appropriate seating</i> <i>Wobble boards</i> <i>Writing slope</i> <i>Enlarge text</i> <i>Variety of writing tools available</i>