


Dereham Church Infant and Nursery School- Mathematics

	<i>Year group: Reception</i>	<i>Area/topic: Mathematics- Mass and capacity</i>
	<p><i>Development Matters – Reception – Compare length, weight and capacity.</i></p> <p><i>Birth to 5 Matters – Range 6 Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy</i></p> <p><i>Range 6 Becomes familiar with measuring tools in everyday experiences and play</i></p>	

<i>Prior learning</i>	<i>Future learning</i>
<p><i>Children will have explored capacity on the water tray and mass whilst playing with the large balance scales in the mud kitchen</i></p>	<p><i>Children will develop this learning in KS1</i></p>

<i>What pupils need to know or do to be secure</i>	
<i>Key knowledge and skills</i>	<i>Possible evidence</i>
<p><i>Compare mass</i></p>	<p><i>Read stories such as Who Sank the Boat? by Pamela Allen. Provide children with recyclable junk modelling resources to build their own boats. How many small world characters can they fit in the boat before it sinks? Prompt children to explore whether this changes for different combinations of animals.</i></p>

<p>Find a balance Explore capacity</p> <p>Compare capacity</p>	<p>Place classroom objects on a balance scale. Add cubes to the other side until the scale is balanced and point out what this looks like. Prompt children to count how many cubes made the scale balance. Will they need more or fewer cubes to make a different object balance the scale?</p> <p>Provide sets of similar containers in different sizes, such as sets of nesting bowls or boxes. Prompt children to fill the containers with objects such as cubes, buttons or marbles. Encourage children to compare and order the capacities of the different containers.</p>
<p>Key vocabulary</p>	
<p>Heavier, lighter, balance, float, sink, heavier, lighter, balanced, mass, fill, container, greatest, smallest, more, less, most, least,</p>	
<p>Common misconceptions</p>	<p>Books linking to this area</p>
<p>Children will become more familiar with using balance scales and distinguish between the different quantities on either side. Use different kinds of scales so children do not think there is only one way to compare mass. It is important to provide a range of resources to explore, including loose parts, so that children can investigate the mass of different objects.</p>	<p>Who Sank the Boat? by Pamela Allen</p> <p>Balancing Act by Ellen Stoll Walsh</p> <p>A Beach for Albert by Eleanor May</p>

<p>Explain that the line across the balance scale needs to be straight, using gestures to emphasise the horizontal line. Emphasise to children that when balancing a scale, both sides need to have an equal mass.</p> <p>Allow children to use different materials such as water, rice, sand and beads to explore the containers' capacities.</p>	
Memorable first hand experiences	Opportunities for communication
<p>Many opportunities to play games. Regular use of a range of manipulatives, loose parts, natural objects etc.</p>	<p>Ask and discuss the key questions provided by White Rose</p> <p>Discuss, share and repeat the sentence stems provided by White Rose</p>

DCINS Reasonable adjustments for pupils with SEND

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