

Dereham Church of England Infant and Nursery Academy- Mathematics

	Year group: Reception	Area/topic: Mathematics- length, height and time
	Development Matters - Reception - Compare length, weight and capacity. - 3 and 4-year-olds - Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' 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 Becomes familiar with measuring tools in everyday experiences and play Range 6 - Is increasingly able to order and sequence events using everyday language related to time Range 6 - Beginning to experience measuring time with timers and calendars	

Prior learning	Future learning
In the Autumn term the children briefly compared size, mass and capacity	The children shall continue to cover time in their daily maths meetings

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence

Explore length

After reading books such as *Superworm* by Julia Donaldson, prompt children to use dough to make worms of different lengths. Encourage them to make a long worm and a short worm. What is the longest worm they can make?

Compare length	Provide children with ribbons of different lengths, widths and colours. Prompt them to line up the lengths of ribbon in order from longest to shortest. Challenge children further by showing them a specific length of ribbon and asking them to find a ribbon that is longer or shorter.
Explore height	Provide children with large pieces of paper on the floor. Prompt them to lie down on the paper and help them to draw around each other. Pin the paper up to support children to see how tall they are
Compare height	After exploring books such as Actual Size by Steve Jenkins, display actual size pictures of various animals in the construction area. Encourage children to make a tower as tall as a penguin. How is it different to a tower as tall as a mouse?
Talk about time	Ask children and key adults to bring in a photograph of themselves from when they were younger. Prompt them to look at the photos carefully – whose picture is whose? How have they changed?
Order and sequence time	Sing the Days of the Week song. Sequence the days of the week to make a class timetable. Order key events that happen on certain days during the week, such as P.E. Place these on the correct days on the weekly timetable.

Key vocabulary	
Long, short, longest, shortest, same, tall, taller, tallest, minute, evening, tomorrow, next week, weekend, yesterday, before, after, first, then,	

Common misconceptions	Books linking to this area
Ensure that resources in provision are varied and allow children to start to make simple comparisons to develop a sense of 'long and short'. Encourage children to physically move objects so they can see the difference. Children should be shown how to make the ends of objects line up so that they can see the difference and should be taught that 'length' is the distance between two points. A good way for children to explore the concept of length is by representing their thinking using their own mathematical graphics in mark-making. Encourage them to explain their ideas as they draw these representations. Support children to understand that height is a type of length. Children will have little concept of their own size to begin with, so drawing around each other and then holding the paper up is a good way for children to recognise how tall they are.	Superworm by Julia Donaldson Actual Size by Steve Jenkins Jim and the Beanstalk by Raymond Briggs I Can Only Draw Worms by Will Mabbitt Titch by Pat Hutchins Tall by Jez Alborough Jack and the Beanstalk Five Minutes' Peace by Jill Murphy Mr Wolf's Week by Colin Hawkins Jasper's Beanstalk by Nick Butterworth

Support children by giving them reference points, such as photographs of events on a journey wall or in a book, so that they can recall past experiences and notice seasonal change. Discuss what is happening tomorrow, next week or at the weekend to support children to talk about the more immediate future.

Use calendars to mark off the days leading up to special events to help to show the passing of time. Children will not yet understand standard units of time; however, pointing out when key events are happening, such as the clock showing twelve for lunchtime, can help to develop this.

Memorable first hand experiences

Many opportunities to play games. Regular use of a range of manipulatives, loose parts, natural objects etc.

Opportunities for communication

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 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>

