



Y3&4 – Maths using Measurement: Improving the outdoor spaces with links to Sustainable Travel - Lesson 1

Objectives:	<ul style="list-style-type: none"> To measure, compare, add and subtract: lengths (m/cm/mm) time (min/sec) To record and compare time with increasing accuracy
Success Criteria:	<ul style="list-style-type: none"> Accurate and appropriate use of measuring equipment Clear recording that shows distance and time Deductions made from the findings
<p>Starter Activity: Show how to convert between m, cm and mm. Then use the activities to practice (on sheets or on whiteboards). http://www.tes.co.uk/ResourceDetail.aspx?storyCode=6122093</p> <p>Teacher Input with key questions: Explain the context for this unit. The local sports centre has agreed to give the school the large plot of land that is adjacent to the play ground, providing plans are submitted to show that it will be put to use for activities that will enhance the health and fitness of those using it. They have also agreed to pay for any improvements to the existing playground if plans and reasons are presented thoroughly and persuasively. Our job is to create those plans using the tasks they have provided us with in order to secure the deal. (If you are able to apply a real life context so much the better – see lesson 4 for links to English / persuasive writing)</p> <p>Tasks 1 <u>To calculate the distance from various points within the school to the playground.</u> These will need to be decided upon depending on the individual school but could include the following:</p> <ul style="list-style-type: none"> Length of playground Width of playground Classroom door to storage sheds Classroom door to cycle storage Storage sheds to vegetable patches Vegetable patches to grass area Cycle storage to seating Seating to vegetable patches <p>Decide which group will calculate which points.</p> <p>2 <u>To calculate how long it takes to move around these distances.</u> Discuss available equipment - m stick, tape measures, trundle wheels pedometers, stop watches. Take ideas about how best to work in 4s – suggest one to time, one to measure, one to record, one to carry out the action. Show example (attached) of how HA/MA could set out their findings.</p>	
<p>LA 2a – 3c LSA supported - use template to record distances and time taken between points</p> <p>MA 3C – 3B CT supported – discuss how to record – create chart in books</p> <p>HA 3b – 4c Independently create own chart in maths books. Record using decimals.</p> <p>Extension Are the spaces too large or small? What would the measurement be if they were enlarged or reduced by 50%</p> <p>Plenary</p> <ul style="list-style-type: none"> What have we discovered about the playground? Compare measurements – what do the findings show? Do the distances work well? Are there any improvements that need to be made on the present playground? What suggestions do we want to make for the new space – record these for ongoing use? 	



Playground measurements and time taken to travel from one to another

Point being measured from	Point being measured to	Distance between points (m and cm)	Time taken to travel (s)