

Lesson Topic : Measuring in Metres	
Year Group : Year 3 and 4	
Learning Outcome	We are learning to use a ruler to measure in Metres.
Links with the New Zealand Curriculum 	Geometry and measurement Measurement • Create and use appropriate units and devices to measure length, area, volume and capacity, weight (mass), turn (angle), temperature, and time. • Partition and/or combine like measures and communicate them, using numbers and units.
Key Competencies 	Thinking Students will have to spend some time thinking about how to position the ruler in order to achieve the correct measurement. They will also be considering how to convert centimetre measurements to metres. Participating and Contributing Students will have to respond appropriately when working with other group members to measure the correct distances. They will have to participate appropriately to help complete their various roles when completing the task. Using Language, Symbols and Texts Students will use the language of mathematics when explaining how to measure numbers larger than 1Metre (the length of a ruler).
Prior knowledge 	The students have been learning about the solar system during the term. They have also completed some other more basic measuring activities prior to beginning this lesson (measuring using a ruler and other methods) before completing a scale model of the solar system measuring in centimetres.
Lesson Sequence	Session Outline While meeting with the teacher, the students will begin by learning how to correctly use a Metre stick to measure in Metres. We will work to convert the centimetre measurements to metres to create an enlarged scale model. Then, the students will move outside to work collaboratively to measure the distance each planet is from the sun before labeling the planet on the hard court outside our classroom.

	<table border="1"> <thead> <tr> <th data-bbox="341 232 917 309">Student Activity</th><th data-bbox="922 232 1501 309">Teacher Activity</th></tr> </thead> <tbody> <tr> <td data-bbox="341 309 917 913"> Learn: - What is the difference between a centimetre and a metre? - How do we use a ruler to measure in metres? - How to we change centimetre measurements to metres? </td><td data-bbox="922 309 1501 913"> Introduce a metre stick and discuss how it is different from a regular ruler. Point out that you are building on the student's prior measuring knowledge. Discuss how we would go about enlarging centimetre measurements to metres to create a scale model in metres. Work with students to decide the best placement for the planets on the hardcourt. Also, build upon their understanding about measurement (ie do we always have to go back to the sun for every planet?) </td></tr> <tr> <td data-bbox="341 913 917 1198"> Create: - Working with your group, measure the distance each planet is from the sun (in Metres). - Label each planet using sidewalk chalk. </td><td data-bbox="922 913 1501 1198"> Help with the editing of the video for student blogs. </td></tr> <tr> <td data-bbox="341 1198 917 1435"> Share: 1. Share the video of your group measuring on the hard court on your blog. </td><td data-bbox="922 1198 1501 1435"></td></tr> </tbody> </table>	Student Activity	Teacher Activity	Learn: - What is the difference between a centimetre and a metre? - How do we use a ruler to measure in metres? - How to we change centimetre measurements to metres?	Introduce a metre stick and discuss how it is different from a regular ruler. Point out that you are building on the student's prior measuring knowledge. Discuss how we would go about enlarging centimetre measurements to metres to create a scale model in metres. Work with students to decide the best placement for the planets on the hardcourt. Also, build upon their understanding about measurement (ie do we always have to go back to the sun for every planet?)	Create: - Working with your group, measure the distance each planet is from the sun (in Metres). - Label each planet using sidewalk chalk.	Help with the editing of the video for student blogs.	Share: 1. Share the video of your group measuring on the hard court on your blog.	
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Resources	Metre stick, sidewalk chalk,								
Reflection and Analysis									
	Lesson Content - The content for this lesson was at the appropriate level for these students who are working at Level 2 for maths. It was a great way for me to see who was able to use a ruler/metre stick effectively and who needed a little more guidance to do it correctly. We were also able to do some multiplying by 100 prior to going outside as we created our enlarged measurements in metres. Lesson Pacing - The pace of the lesson was great. We were able to start out slow and make sure that everyone had an understanding of what to do and then the students set the pace for the rest of the lesson while creating to learn.								

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	Lesson Delivery -The students were excited to use a topic (the solar system) that we had been studying in our Inquiry Focus for the term. They really enjoyed doing something with a more hands on approach. They were also very excited to leave the classroom for a bit and do something different from the rest of the class. Student Understanding- Students were able to demonstrate their own understanding of using a ruler to measure in metres. It was a great way to help those who still were not confident to further their understanding of measurement using a ruler to measure long distances.
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