



## Mathematics Target

<b>School Name:</b>	St Joseph's School	<b>School Number:</b>	3533
<b>Strategic Aim:</b>	Provide quality teaching and learning experiences for all.		
<b>Annual Aim:</b>	To have literacy and numeracy programmes that promote student learning with National Standards as signposts to progress and achievement.		
<b>Target:</b>	Raise the achievement of students in mathematics across the school with a focus on accelerating the progress of target students in Year 4, Year 5, and Year 7-8 students who were below the expected level in 2016.		
<b>Baseline Data:</b>	In 2016, 86.6% of students were at the expected level in maths. Gender and ethnicity details show an even spread of those not achieving however there are some year groups that will be a target for 2017.		



<b>Actions</b> <i>What did we do?</i>	<b>Outcomes</b> <i>What happened?</i>	<b>Reasons for the variance</b> <i>Why did it happen?</i>	<b>Evaluation</b> <i>Where to next?</i>																																
<p>School funded withdrawal group 2017: Term 2-3</p> <p>Maintain target group students accelerated progress using strategies trialled over last 2 years.</p> <p>Target students in each class were identified and given extra maths teacher instruction time e.g. 2 sessions a day.</p> <p><b>Strategies that were used included</b></p> <ol style="list-style-type: none"> <li>Students explaining &amp; justifying</li> <li>Knowledge of how to use the equipment</li> <li>Variety of equipment</li> <li>Number sense and fluency</li> <li>Unpacking the task</li> <li>Teacher knowledge of the number framework, Revoicing Just in Time learning.</li> </ol> <p><b>Teaching approach included:</b></p> <ol style="list-style-type: none"> <li>Start with a question</li> <li>Students need to struggle</li> <li>You are not the answer key, (lean together, let peers answer/debate/challenge. By refusing to answer - you draw other students in.</li> <li>Say yes to students ideas - let peers</li> </ol>	<table border="1" data-bbox="636 536 1088 826"> <thead> <tr> <th>NS</th> <th colspan="2">2016 Below</th> <th colspan="2">2017 Below</th> </tr> </thead> <tbody> <tr> <td>Yr4</td> <td>8</td> <td>34.8%</td> <td>5</td> <td>20%</td> </tr> <tr> <td>Y 5</td> <td>4</td> <td>18.2%</td> <td>5</td> <td>19.2%</td> </tr> <tr> <td>Yr7 &amp;8</td> <td>7</td> <td>3%</td> <td>8</td> <td>20%</td> </tr> </tbody> </table> <p>Target students identified at the start of 2017 made significant progress.</p> <table border="1" data-bbox="636 948 1088 1394"> <thead> <tr> <th>Identified groups for annual plan</th> <th>2016 Overall teacher judgement National Standard</th> <th>2017 Overall teacher judgement National Standard</th> </tr> </thead> <tbody> <tr> <td>Yr4</td> <td>8 Below</td> <td>3=below 5=at</td> </tr> <tr> <td>Yr5</td> <td>4=below</td> <td>2=below 2=at</td> </tr> <tr> <td>Yr7&amp;8</td> <td>7=below</td> <td>2=below 5=at</td> </tr> </tbody> </table>	NS	2016 Below		2017 Below		Yr4	8	34.8%	5	20%	Y 5	4	18.2%	5	19.2%	Yr7 &8	7	3%	8	20%	Identified groups for annual plan	2016 Overall teacher judgement National Standard	2017 Overall teacher judgement National Standard	Yr4	8 Below	3=below 5=at	Yr5	4=below	2=below 2=at	Yr7&8	7=below	2=below 5=at	<p><i>Why did we get (or not get) the outcomes we thought we would?</i></p> <p>Teachers in the senior syndicate had professional learning on developing students number sense of using rich maths tasks. They also visited another school to observe maths lessons. Students commented in observations on how the increased focus on number sense and using materials helped.</p> <p>One factor that did make an impact were the new enrolments with several English as a Second Language students coming into target groups during the year. Accessing information from their previous schools was an issue and it took time to analyse what their learning needs were.</p> <p><i>Which strategies worked well and had a significant impact on our progress in achieving your target? Why?</i></p> <p>The increased use of materials with students at risk and the focus on developing number sense were strategies that worked. Ensuring students had a deep understanding of place value was important as students were able to develop strategies once this was firmly in place.</p>	<p><i>Based on the outcomes in 2018 and the reasons for these, what will we do the same/ differently next year?</i></p> <p>We will continue to identify a target group of at risk students in each class and ensure that this group has extra maths teacher instruction time e.g. 2 sessions a day .</p> <p><i>We have identified some ongoing teacher and student needs</i></p> <p>86% of students were at the National Standard for mathematics however, not as many were above as in writing and reading. This is an area we would like to strengthen. Support for students who are above the expected level and ways to extend mathematical thinking will be a focus in 2018.</p> <p>Whole school professional learning is needed to further develop teachers understanding of rich maths tasks and number sense teaching and learning.</p>
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## Tātaritanga raraunga

5. debate it, validate the students efforts.  
Being slow to solve a problem does not mean you can't.

Enrolments during the year are reflected in the data with new students moving into target groups

Students commented on an improved attitude to maths and having developed a growth mindset about trying new learning in maths. Many commented on improving in basic facts particularly. The focus on number sense for these students helped with this.

*Which strategies were not effective and had little or no impact in achieving our target? Why?*

The withdrawal group being taken by the Principal did not work effectively in that there were many interruptions and times when the group were not given the extra teaching due to other commitments. Finding a way to fund this in the future as it has proved effective in the past is a goal.

Although the senior syndicate had some professional learning, it was limited to one session and a visit. More in depth work is needed for the whole staff to ensure understanding of strategies.

*What funding/resourcing may be necessary to support identified actions and needs?*

We need to investigate whether banked staffing can be used to release a teacher for 10 weeks to work an hour a day to work with a withdrawal group of at risk students.

Resourcing of extra maths equipment once audit is completed.

### Planning for next year:

A target for 2018 has been set to increase the percentage and number of Year 1-8 students operating at or above the age appropriate curriculum level in mathematics.

Strategies to achieve this will include working with staff to strengthen the understanding of number sense and number fluency and supporting, and extending student's mathematical thinking through effective questioning and engaging teaching and learning. This will be a focus for PLD staff sessions throughout the year and be tied into the teaching inquiry on student agency and engagement (CoL target).

Providing quality extension for high achieving maths students will also be a focus across the school.

An audit of the maths equipment to ensure the appropriate equipment is available will also be undertaken.

Staffing for a withdrawal group will be worked at.