

## Murrays Bay Primary School

### 13. Curriculum Achievement Target – Mathematics 2018

**General Goal:** To increase the number of students achieving above the National Standard for Mathematics

Historical Position	Strategic Actions and Checkpoints	When?	What?																					
<p><b>Baseline data:</b> Analysis of school wide Mathematics Data End of 2017.</p> <table border="1" data-bbox="183 499 714 898"> <thead> <tr> <th></th> <th>Below</th> <th>At or Above</th> </tr> </thead> <tbody> <tr> <td>After 1 Year</td> <td>1.8%</td> <td>98.2%</td> </tr> <tr> <td>After 2 Years</td> <td>9.7%</td> <td>90.3%</td> </tr> <tr> <td>After 3 Years</td> <td>13.2%</td> <td>86.8%</td> </tr> <tr> <td>End of Year 4</td> <td>13.8%</td> <td>86.2%</td> </tr> <tr> <td>End of Year 5</td> <td>15%</td> <td>85%</td> </tr> <tr> <td>End of Year 6</td> <td>18.8%</td> <td>81.2%</td> </tr> </tbody> </table> <p><b>Areas for improvement:</b></p> <p>There is a 15.1% difference between the number of boys and girls achieving above the National Standard.</p> <p>In 2016, 40.6% of students were achieving above the National Standard in comparison with 34.3% in 2017. 22.6% of Māori students and 37.5% of Pasifika students are achieving below the National Standard in comparison with 10.9% of all students. The number of Pasifika students is small (6 students) 6.5% of Maori students and 6.3% of Pasifika students are achieving above the National Standard in comparison with 34.3% of all students.</p>		Below	At or Above	After 1 Year	1.8%	98.2%	After 2 Years	9.7%	90.3%	After 3 Years	13.2%	86.8%	End of Year 4	13.8%	86.2%	End of Year 5	15%	85%	End of Year 6	18.8%	81.2%	<p>Appropriate budget support</p> <p>Collect data and review</p> <p>Initial report to Board of Trustees</p> <p>Analysis of Gloss responses to inform teaching - Across School groups</p> <p>In school professional development</p> <p>Home and School partnerships</p> <p>COL Mathematics PLG</p>	<p>All Year</p> <p>Term 2 and 4</p> <p>Term 1</p> <p>Term 2, Term 4</p> <p>All year</p> <p>All year</p> <p>Twice a Term</p>	<p>All Mathematics Data</p> <p>Collate data from previous year</p> <p>OTJ consistency</p> <p>Staff meetings</p> <p>Reporting and consultation</p> <p>Across COL professional learning and discussions.</p>
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<p><b>Strengths:</b></p> <p>87.9% of students are achieving at or above the National Standard. This is above our goal of 85%.</p> <p>No Maori students are well below the National Standard and only 1 Pasifika student is well below.</p> <p>93% of Asian students are achieving at or above the National Standard and there are no Asian students well below.</p> <p>Both boy and girls are achieving above the goal of 85% at or above the National Standard. Only a small percentage of male and female students are well below the standard (2.5%).</p> <p>With the exception of Y6, each year level is meeting or exceeding the goal of 85% for at and above. The cohort for Y6 has shown this data historically. 53% of these Year 6's are achieving above the national standard.</p> <p>Priority learners in mathematics are identified and targeted for acceleration through ILE and flexible groupings.</p>			
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<b>Strategic Goal:</b>	<b>Outcome Indicators:</b>
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<p><b>Using 2017 historical data, the following targets are for the 2018 - 2020 - year levels.</b></p> <ul style="list-style-type: none"> <li>● There is a 15.1% difference between number of boys and girls achieving above the National Standard. To improve the percentage of girls achieving above the national standard we need to investigate the viability of a girls acceleration group in year groups and look into research possibly through TAIs as to how we boost their achievement. Our Aim would be to have raised the level of girls above the standard to 32% to be within 10% of the boys.</li> <li>● In 2016 40.6% of students were achieving above the National Standard in comparison with 34.3% in 2017. This is a trend as in 2015 (44.2%) the percentage dropped to 40.6% in 2016 demonstrating the need to accelerate our students who are achieving at the standard. We have been given MOE funding for school wide PLD in Mathematics. In 2018 our aim is to have over 40% above the national standard.</li> <li>● 22.6% of Maori students and 37.5% of Pasifika students are achieving below the National Standard in comparison with 10.9% of all students. The number of Pasifika students is small (6 students) 6.5% of Maori students and 6.3% of Pasifika students are achieving above the National Standard in comparison with 34.3% of all students. This small number of students needs to be targeted across the year groups. Children will be identified in TAI's and team RAP plans. Alternative strategies will be trialled through TAI, collaboration, assessment and PLD. PLD will be both on teaching practice and assessment.</li> </ul>	<ul style="list-style-type: none"> <li>● Student achievement.</li> <li>● Teacher expertise and knowledge (assessment, pedagogical content knowledge, National Exemplars, National Standards illustrations, MBS Progressions, easTTle).</li> <li>● Teachers focusing their practice on needs identified in data and observation (TAI).</li> <li>● Teachers using whole class and group work to improve Mathematics strategies and knowledge. Mixed ability groupings to be implemented in all classes.</li> <li>● Multi-ability mathematics lessons</li> <li>● Children supporting each other to learn</li> <li>● Impacts for children</li> <li>● Processes for sustainability are in place.</li> <li>● Improved formative assessment practices in Mathematics.</li> <li>● Sharing practice and student data as a regular aspect of staff, team, management, and BOT meetings.</li> <li>● Analysis of Gloss responses to inform teaching - Across School groups - Termly across school/across team.</li> <li>● Self review against 'Tataiako' – Cultural Competencies for Teachers of Maori Learners and 'Ka Hikitia' – Managing for Success: The Maori Education Strategy.</li> <li>● PLG group will share learning and up skill teachers on Mathematics.</li> <li>● Working as a Community of learners sharing best practice and moderate across schools.</li> <li>● Evaluation of MOE funded PLD against the outcome indicators.</li> </ul>
<p><b>Curriculum Achievement Target – Mathematics 2018</b></p>	

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### Students will be:

- Talking about their learning.
- Using mathematical language confidently.
- Self and peer assessing.
- Having locus of control, opting into workshops and setting goals.
- Sharing to a wide audience in a variety of ways.
- Be confident and enthusiastic mathematicians.
- Maintain and improve their attitudes towards Mathematics.
- Meaningfully engage in/use mathematics everyday.
- Sharing Mathematics with peers, teachers and families.
- Students to know their next steps and learning intentions. Be clear about where they are and what they are going to achieve.
- Use and explain strategies.
- Students know expectations.
- Participating in shared learning experiences.
- Students can explain the links of their mathematics to the real world.

### Teachers will be:

- Making sure that we sell students the idea that Mathematics is fun and that they can do it.
- Sharing good Mathematics ideas at team meetings.
- Make sure that they understand how Mathematics language and strategies work.
- Deliberate acts of teaching.
- Modelling.
- Actively reflecting.
- Sharing experiences, observing other teachers, changing our own practice.
- Teaching as inquiry.
- Teaching Mathematics everyday.
- Task versus the learning – be clear about the learning. Focus on the learning.
- Teachers will be involved in Professional Learning Groups and PLD.

### Teachers will be:

- Use e-Learning to enhance Mathematics.
- Read and research, TKI/TAI.
- Modelling and exemplars.

### By end of 2018 and then on-going

#### How success will be measured:

Links to teachers' appraisals, professional discussions, students' books, and teacher student conferences, Mathematics assessments and Student led conferences during reporting time. Student's achievement will be monitored and remedial actions taken where necessary. Having exemplars on display or readily available digitally for the students to see so they know what they have to aim for. Celebration of their work at whole school and team assemblies - buying into its success. Students' attitudes. Real feedback from a range of sources. Teacher's inquiry. Parent's information. How well students can articulate their work, learning and attitudes. Co-constructing success criteria. Continue to improve positive attitudes towards mathematics in class (survey). Willingness to share their mathematics in class and at home. Students bringing their parents/caregivers into the class before/after school to share their mathematical successes.

#### Expected outcome for teachers?

- Developing strong pedagogical knowledge centred on the dimensions of Effective Mathematical Practices. Staff and team meetings to address this area.
- Engaged in a cycle of inquiry into their own practice.
- Gaps analysis.
- Teachers have identified goals for their own learning (including focused visits to other classrooms)
- Participate in professional development linked to Community of Learning (CoL).
- Evidence of development in "Appraisal Connector" relating to school wide writing goal.

#### How success will be measured?

- Evidence of effective teaching and quality learning in the classrooms.
- Teachers able to use data to plan teaching and learning.

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- Give specific feedback and model how the students can do this for each other.
- Sharing good Mathematics ideas and resources.
- Ensuring students have daily Mathematics opportunities.
- Co-construct Learning Intentions with students individually.
- Stop, drop, and share strategies.
- Clear, concise mathematics targets, goals and intentions.
- Having high expectations.
- Providing the students with their personal next learning and goals.
- Making Mathematics meaningful and giving good motivation to engage.
- Continuing our own professional development school wide and sharing our ideas and resources with others.
- Celebrate student's mathematics, in the class, with other teachers and classes, community and families.
- Working with and alongside Community of Learning (CoL) leaders to improve practice.
- Twice a year - Analysis of Gloss responses to inform teaching - Across School groups.
- Conferencing with individuals and groups.
- Flexible mathematics groups

- Learning Intentions are specific to the identified student needs.
- Teachers know where students are with their learning, the appropriate rate of progress, and what they need to learn next.
- Target students identified, next teaching steps planned for and regular support given by the classroom teacher.
- Teachers sharing practice and adjusting teaching where necessary based on reflection and discussion. Planning, classroom observations, student achievement, student voice, tracking tools, planning will reflect the strategies and approaches used including observations. This will happen with support from Community of Learning (CoL) in school and across school leaders.
- Testing and data results. Checking if targets have been met.
- Student voice.
- Parent voice.

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**Leaders will be:**

- Leading regular Numeracy staff and team meetings, with a focus that leads to improved teacher knowledge and practice.
- Leading target discussions. Ensure that target discussion and analysis is happening.
- Leading Gaps analysis.
- Analysis of data. Feeding back to teams, parents, and students.
- Identifying target students.
- Ensure mathematics is happening everyday.
- Looking for and sharing examples of best practice.
- Be an example of best practice.
- Engaging our parent community.
- Provide opportunities for Mathematics PLD in school/out of school

**Parents will be:**

Learning how to help at home through...

- Parent – teacher - student (Student led conferences/meetings)
- Newsletters
- Looking at student’s work via online sites – encourage feedback.
- Looking at student’s work
- Parents and the community are kept informed of progress towards school goals and Community of Learning (CoL) goals.
- BOT reports, and feedback
- Work with parents, families and whanau around ways to support students learning.

**How success will be measured?**

- Parents will have a better understanding of how children learn mathematics strategies and knowledge, and how they may help at home. Parents and community are informed. Student voice and feedback from parents.

**The Principal will:**

- Lead the development by supporting the role of the Community of Learning (CoL).
- Ensure teachers have adequate release time to work with Community of Learning (CoL) lead teachers and across school leaders where appropriate.
- Support the Mathematics lead teacher and CoL leaders with staff meetings and team meetings, including focussed discussions around data, practice, readings, evaluation and reflection, and teaching as inquiry.
- Tracking school wide assessment data for trends and patterns – (SMT, Curriculum and CoL leaders).
- Looking for Professional Learning opportunities.
- Asking questions about practice.
- Drawing on the expertise of those who have effective practice and ideas to share.
- Looking at, reading over students work and sharing success.
- Reporting to the board.
- Facebook, website, newsletter information to parents and community.
- Opportunities to share Mathematics with class/school/community (newsletters/MBS News)

**Expected Outcomes:**

- Parents and the community are kept informed of progress towards school goals and Community of Learning (CoL) goals.
- Greater awareness of the National Standards/levels of achievement in Mathematics
- Principal is aware of children’s achievement and next steps in learning.