


St Therese's Primary School, Cranbourne	System Update: 19.09.2019	
Version 0.1	Date of Next Review: 19.09.2021	

# St Therese's Primary School

## Mathematics Policy

### OVERVIEW

Learning mathematics creates opportunities to enrich lives and society. It develops the capacity, confidence and disposition to use mathematics to meet the demands of learning, school, home, work, community and civic life. It ensures there is a future workforce to contribute productively and competitively in our ever-changing global world.

The Mathematics curriculum focuses on developing increasingly sophisticated and refined mathematical understanding, fluency, reasoning, modelling and problem-solving. These capabilities enable students to respond to familiar and unfamiliar situations by employing mathematics to make informed decisions and solve problems efficiently.


### AIMS

The Mathematics curriculum aims to ensure that students:

- Develop useful mathematical and numeracy skills for everyday life, work and as active and critical citizens in a technological world
- See connections and apply mathematical concepts, skills and processes to pose and solve problems in mathematics and in other disciplines and contexts
- Acquire specialist knowledge and skills in mathematics that provide for further study in the discipline
- Appreciate mathematics as a discipline – its history, ideas, problems and applications, aesthetics and philosophy


### At St Therese's we believe that:

- Mathematics should be taught every day (One Hour)
- Data must be used to inform effective planning, in order to meet the individual learning needs of all students
- Teachers use data to place students in focus groups, to enable explicit and targeted instruction of required skills and strategies
- Teachers monitor and track student progress, using the agreed assessment tools (Essential Assessment - Numeracy and PAT-N) and The Progressions of Learning
- Students monitor and track their own progress, using the Essential Assessment - Numeracy
- Lessons provided include explicit teaching of effective mathematical strategies
- Lessons incorporate the use of concrete, hands on materials (F-6)
- Lessons incorporate the effective use of Digital Technologies
- Teachers use the Cycle of Inquiry (Helen Timperely) to promote student outcomes and inform their personal professional learning in Mathematics (see below)

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## Implementation

- Mathematics curriculum is based on the Victorian Curriculum F-10 for Mathematics
- Organised around the content strands: Number and Algebra, Geometry and Measurement, and Statistics and Probability, and the four proficiency strands: Understanding, Fluency, Problem Solving and Reasoning
- The teachers will devise yearly planners using the Victorian Curriculum F-10 prescribed content and achievement standards, activities, resources and progression points
- The teaching and learning programs will build on students' interests, strengths, goals and learning needs, to ensure engagement and successful mathematics learning
- Develop effective learning intentions and success criteria to support the learning for individual students
- Student achievement measured at the commencement of each topic of work, and learning goals and opportunities planned and provided to cater for the identified learning needs of each student
- Student progress in Mathematics recorded progressively for each topic in individual student Continuum of Numeracy
- Final judgements against the Victorian Curriculum progression points will be moderated by teachers and reported in half and end of year parent reports
- Student instruction will be at least 5 hours per week for all F-6 classes
- A mathematics program budget resourced by the school to meet identified priorities
- The Learning and Teaching Leader along with each level's Middle Leader will oversee the delivery of the mathematics curriculum, provide ongoing teacher professional learning, allocate resources and promote the value of mathematics in the school
- The Learning and Teaching Leader will lead weekly PLTs that focus on the learnings of the Collectives and that focus on analysed data to inform and reflect on quality teaching and learning
- Students who have additional learning needs will have a modified program as necessary. This will be outlined and recorded in individual teachers' work-programs and in ILPs. All modifications to programs will be clearly communicated to parents by classroom teachers and in consultation with the Learning Diversity Leader


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**Teachers have an agreed theory of practice of what makes an effective 'Numeracy Session' as outlined:**

<u>Structure of the Lesson</u>		<u>Teaching Approaches</u>	<u>Evidence</u>
10 mins	<b>Fluency</b> Practice of skills Strategy based (not rote)	Conferring Roving Questioning	<ul style="list-style-type: none"> <li>• Differentiated to match student needs</li> <li>• Tasks are engaging for the learners</li> <li>• Students can self monitor</li> <li>• Only practice, no new skills</li> </ul>
10 mins	<b>Whole Class Focus</b> Hook Learning Intentions/Success Criteria Connections to prior learning	Modelling Sharing	<ul style="list-style-type: none"> <li>• Teacher makes connections to prior learning</li> <li>• Teacher makes Learning Intentions and Success Criteria explicit</li> </ul>
30 mins	<b>Independent/Small Group</b> Differentiated with tools or like tasks Varied tasks Individual/paired or group work	Modelling Sharing Guiding Conferring Independent	<ul style="list-style-type: none"> <li>• Differentiated - Enabling and Extending Prompts, Low Floor - High Ceiling</li> <li>• Related to whole class focus</li> <li>• Use of concrete objects</li> <li>• Small groups come from observations</li> <li>• Mixed ability groups/peer teaching/individual</li> <li>• Feedback and roving</li> </ul>
10 mins	<b>Reflection</b> Oral or written reflections Highlight misconceptions Look at efficient strategies	Modelling Sharing	<ul style="list-style-type: none"> <li>• Related back to Learning Intentions and Success Criteria</li> <li>• Feedback</li> <li>• Uses a variety of strategies</li> <li>• Addresses misconceptions highlighted during roving</li> <li>• Focuses on what students found out</li> <li>• Students explain their strategies</li> <li>• Highlight connections between concepts</li> <li>• Continuum of Numeracy</li> </ul>

**Mathematics Assessment Schedule**

	Term One	Term Two	Term Three	Term Four
* MAI pre/post testing for each unit	F - 6 F - maths interview	F - 6	F - 6	F - 6
PAT Maths - October				F - 6
*Essential Assessments - Numeracy Pre / post testing for each unit	F - 6	F - 6	F - 6	F - 6
NAPLAN		Years 3 and 5		
Moderation of work samples	F - 6 Throughout the entire year, at the whole school PLT meetings. At least once per term			

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\* Teachers can select their pre and post-testing from either MAI or Essential Assessments with the intention of working with MAI only