



CURRAMBINE PRIMARY SCHOOL

TOGETHER TOWARDS TOMORROW

Whole School Numeracy Plan



Whole School Numeracy Plan

Vision: Currambine Primary School is committed to achieving the best possible numeracy outcomes for all students.

Mission: In the Maths Learning Area, Currambine Primary School will encourage a love of learning and will provide appropriate programs to support all students to achieve their potential.

Ethos: All students will be provided with opportunities to succeed, in a supportive and positive learning environment, regardless of gender, race or ability.

Values: Students at Currambine Primary School will be supported to pursue knowledge and commit to the achievement of their potential and to develop self confidence and respect of self and others.

Community Links: Currambine Primary School will strive to develop collaborative, supportive and respectful relationships between school, home and the wider community.

MATHEMATICS LEARNING AREA

Aims of the Australian Curriculum:

The curriculum anticipates that schools will ensure all students benefit from access to the power of mathematical reasoning and learn to apply their mathematical understanding creatively and efficiently.

The mathematics curriculum provides students with carefully paced, in-depth study of critical skills and concepts. It encourages teachers to help students become self-motivated, confident learners through inquiry and active participation in challenging and engaging experiences.

The Australian Curriculum: Mathematics aims to ensure that students:

- are confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens
- develop an increasingly sophisticated understanding of mathematical concepts and fluency with processes, and are able to pose and solve problems and reason in Number and Algebra, Measurement and Geometry, and Statistics and Probability

- recognise connections between the areas of mathematics and other disciplines and appreciate mathematics as an accessible and enjoyable discipline to study.

Beliefs about Numeracy

At Currambine Primary School our Mathematics program:

- has a structured, coordinated and whole school approach from K to 7
- has a structured, coordinated and whole school approach to the assessment and monitoring of student progress from K to 7
- focuses on the explicit teaching of essential maths skills fostering a deep understanding of mathematics concepts using a hands-on approach to learning
- uses the principles, philosophy and strategies of First Steps in Maths
- has a structured and consistent approach to developing students' understanding and application of concepts, across all strands, in practical contexts involving multi-step tasking and the integration of the proficiency strands
- 25% of our daily instruction is numeracy focussed
- Will be made up of 90 minute sessions, incorporating mental maths warm ups, explicit teaching, application time and reflection and sharing.
- Will be organised in content units of teaching with explicit outcomes and Pre and post assessment and/ Diagnostic tasks
- sets specific targets for each content block for each year level
- will see staff actively engaging in professional learning to continue to up-skill in knowledge and confidence in delivering maths programs by what is considered 'Best Practice'
- will provide accurate and reliable reporting of student progress to parents in a timely fashion

Links to Departmental Documents:

The Currambine Primary School Whole School Numeracy Plan links directly to the following publications:

Focus 2013
Classrooms First Strategy
Early Years Framework
Curriculum, Assessment and Reporting Policy
ACARA-The Australian Curriculum

The Role of the Teacher at Currambine Primary School

- Each Teacher will have access to the Mathematics website through the school intranet that will provide resources to support the delivery of best practice in mathematic teaching.
- All Staff will plan using the Currambine Primary School mathematics planning tool which include links to First Steps in Mathematics, the Australian Curriculum and the Mental Computation Scope and Sequence document. Planning will include;
 - Highlight the appropriate header boxes indicating what the program addresses including cross curricula competencies.
 - State mathematical focus or Key Understandings from the Maths Tracker check points or First Steps as appropriate.
 - State mental computation strategies to be taught and the teaching strategies that will be used.
 - Document a series of lessons for the content block which include direction regarding Explicit Teaching, Guided / Individual Practice and Plenary sessions. Staff members are encouraged to provide a time allocation for each section of the lesson.
 - State the proficiencies to be addressed in the each lesson
 - Include specifically identified pre and post diagnostic tasks. A previous post diagnostic test can be used as a pre diagnostic task to inform planning.
 - State appropriate focus questions and key vocabulary to support the explicit teaching and plenary sections of the lesson.
 - State modifications to manage remediation and extension of selected students.
- Access to the First Steps in Mathematics resources are available to teachers through the school's Mathematics website.
- All Staff will deliver units of Mathematics through content blocks. When developing content blocks Staff will consider;
 - The breadth of curriculum to be covered over the year.
 - Opportunities for content to be revisited with some content to be revisited on numerous occasions. (The planning pro-forma provides a tool to support this process).
 - Identification of specific learning outcomes.
 - The use of pre and post diagnostic tasks.
 - The length of a content block (five to fifteen days).

- All Staff will use the mandated school based monitoring tool. This tool should be primarily used as a formative tool.
- Student achievement records will be maintained using the Mathematics tracker Tool. Staff members are encouraged to input data at the conclusion of each content block but must be updated by the conclusion of week 8. In week 9 class data will be uploaded to the master files so that year level analysis is available to staff and the administration in Week 10.
- Each classroom, K to Yr 4, will utilise numeracy bags to encourage home school links in the area in Mathematics.
- Teachers will plan and moderate collaboratively with their year level colleagues on a termly basis.
- Teachers will utilise the Mental Mathematics Scope and Sequence to guide content and strategies to be treated. Teachers should also use a rational approach to teaching basic facts and combinations. Staff should refer to First Steps in Mathematics Book 2, pages 189 to 195 for clarification on a rational approach to teaching basic facts and combinations.
- Teaching Mental Strategies requires both explicit teaching; modelling/guided practices (Understanding Proficiency) and practice through a variety of relevant and appropriate activities (Fluency Proficiency). The balance of instruction should be weighted at 60% explicit teaching of strategies; while fluency activities should make up 40% of the program. The multiplication maps may be used to support this work. (Refer to resources).
- Students should only be exposed to vertical algorithms following explicit teaching to front load the required mathematical understandings. Vertical and horizontal algorithms should be one of many written strategies children are exposed to.
- Instructions in Mathematics should reflect the numeracy block structure described below:

Numeracy Block Session	Purpose / Strategies
Whole Class Mental Comprehension 10-15 minutes.	Explicit strategy teaching 60% Practice and Application 40%
Whole Class Concept Instruction 10-15 minutes.	Communicate success indicators. Activate prior knowledge. Explicit modelling / think alouds / promotion of mathematical thinking. Teaching mathematical vocabulary. Model / discuss / question mathematical concepts / reasoning.
Guided/Differentiated Skills Practice 45-60 minutes.	Differentiated small group work. Group activities should be found on the specific learning outcomes. Collaborative / Co-operative / Paired

	learning tasks. Specific skill focus/practice activities. Whole class guided instructions.
Plenary Session – 10-15 minutes.	Students articulate and share conceptual understandings and mathematical connections. Children articulate and share mathematical strategies used. Teacher provides an explicit summary of the key ideas in the lesson.

- Quality mathematics lessons should provide a mix of modelling, group/co-operative learning and independent work. The table below are the recommended balance.

Year Level	Modelling	Collaborative/Group work	Independent/Individual learning
K PP Yr1	20%	80%	10%
Yr 2 Yr3 Yr4	20%	60%	20%
Yr5 Yr6 Yr7	20%	50%	30%

- All Numeracy blocks should include opportunities for the students to develop the mathematical proficiencies – Understanding, Fluency, Problem Solving and Reasoning.

The Role of the Numeracy Leaders at Currambine Primary School

- To build the capacity of the school to improve Numeracy through modelling, mentoring and coaching teachers
- To support teachers to utilise diagnostic assessment as an integral part of the learning, teaching and assessment cycle
- To support teachers in effectively translating assessment information into focussed instruction, including differentiating the curriculum to meet individual student's needs
- To support teachers in their transition to and exploration of the Australian Curriculum
- To plan and collaborate with committee members or agencies to provide quality professional learning opportunities for all staff
- To build the profile of maths to parents, staff and students

The Role of the Numeracy Committee: at Currambine Primary School

- To foster 'Best Practice' in the teaching of Mathematics

- To promote maths in the school and the community (for example, through newsletters, 120 days of school celebrations, classroom displays, incursions and excursions and maths celebrations)
- To support staff in their Professional Learning of Mathematics
- To contribute to the Professional Learning within our school network
- To oversee stock take of all classroom and team based resources
- To assess the validity of any recommended resources for use throughout the whole school
- To support and provide on-going education of the parent community
- The Whole School plans, pedagogical processes and assessment practices will be managed and owned by the maths committee

The Role of the Administration Team: Each member of the administration team will support the Whole School Numeracy Plan by:

- Working collaboratively with and supporting teachers to implement the Whole School Numeracy Plan
- Providing support for teachers to plan and implement teaching and learning programs and to collect, analyse and moderate student achievement data
- Providing feedback to teachers on their effective use of the CPS planning tools, monitoring tool and use of pre and post diagnostic assessments
- Provide opportunities for staff development in areas linked to the Whole School Numeracy Plan
- Supporting parents to work collaboratively with teachers to support Numeracy
- Demonstrating educational leadership in the area of Numeracy
- Supporting the role of the Numeracy leaders and Numeracy Committee

