School Policy
Statement 2013

Numeracy Policy
What is Numeracy?

To be numerate is to use mathematics effectively to meet the general demands of life at home, in paid work, and for participation in community and civic life.

In school education, numeracy is a fundamental component of learning … across all areas of the curriculum. It involves the disposition to use, in context, a combination of:

• underpinning mathematical concepts and skills from across the discipline (numerical, spatial, graphical, statistical and algebraic);
• mathematical thinking and strategies;
• general thinking skills; and
• grounded appreciation of context

“Students become numerate as they develop the knowledge and skills to use mathematics confidently across all learning areas at school and in their lives more broadly. Numeracy involves students in recognising and understanding the role of mathematics in the world and having the dispositions and capacities to use mathematical knowledge and skills purposefully.

The Melbourne Declaration of Educational Goals for Young Australians (MCEETYA 2008) recognises that numeracy is an essential skill for students in becoming successful learners at school and life beyond school, and in preparing them for their future roles as family, community and workforce members. More broadly, a highly numerate population is critical in ensuring the nation’s ongoing prosperity, productivity and workforce participation.”

(Australian Curriculum, General Capabilities: Numeracy)

What do we believe?

At Mitchelton State Special School (MSSS) we believe that our students should develop mathematical understandings through explicit teaching of concepts, practical tasks, real-life experiences and investigations. For our students, the development of skills in Mathematical Understandings and Concepts reflects State and Federal government framework requirements whilst being tailored to the specific skill development of individual students.

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.

In the Australian Curriculum, much of the explicit teaching of numeracy skills occurs in Mathematics. Being numerate involves more than the application of routine procedures within the mathematics classroom. Students need to recognise that mathematics is constantly used outside the mathematics classroom and that numerate people apply mathematical skills in a wide range of familiar and unfamiliar situations.
What do we do?

The Australian Curriculum for Mathematics is organised around the interaction of three content strands and four proficiency strands. The content strands are **Number and Algebra**, **Measurement and Geometry**, and **Statistics and Probability**. They describe what is to be taught and learnt. The proficiency strands are **Understanding**, **Fluency**, **Problem Solving**, and **Reasoning**. They describe how content is explored or developed, that is, the thinking and doing of mathematics. They provide the language to build in the developmental aspects of the learning of mathematics and have been incorporated into the content descriptions of the three content strands described above.

At Mitchelton State Special School (MSSS) the Australian Curriculum Scope and Sequence, C2C planning materials and QSA Numeracy Indicators are used to plan for relevant and purposeful mathematical learning experiences. Individualised targets and goals that are relevant to students' developmental needs and mathematical understandings will be set at each ISP cycle, and discussions with major stakeholders regarding target setting, progress and achievements occurs at ISP meetings and through the semester reporting process.

For our students, the development of mathematical understandings and concepts is mapped annually using the First Steps Number Developmental Continuum. Assessment guidelines accompanying the continuum ensure consistency in teacher judgment. This data is used to inform future planning and in target setting in line with the ISP cycle.

At MSSS we recognise that for our students, the contexts for learning should occur through play, access to a range of equipment and communication technologies, access to a range of experiences in a range of environments, explicit teaching practices and individualised learning opportunities.

To be able to understand the language of mathematical concepts such as following directions and working mathematically, students need to develop an understanding of mathematical language related to position in space, quantity, comparisons, number, number operations, time, money and monetary use, measurement of distance, capacity, weight and space.

Students will acquire early mathematical concepts through activities that involve identifying, sorting, matching, comparing, classifying, and making patterns and sequences in a variety of contexts. These activities should involve children in playing, exploring and investigating, doing and observing, talking and listening and asking and answering questions.

The ability to order, sequence and understand the quality of numbers is vital to developing numeracy. Students need to have an understanding of number in order to develop skills in understanding quantity, time, money handling, and measurement.

For students at MSSS, learning these skills and applying them in real-life contexts should occur through Community Based Instruction programs which are considered an essential component of the teaching of mathematics.
## Mitchelton Special School Framework for the Teaching of Mathematical Understandings and Concepts

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<td>Junior Phase of Learning</td>
<td>Australian Curriculum</td>
<td>Data from assessments (e.g. QSA Numeracy Indicators, Number Developmental Continuum) to be used to identify individual student mathematics learning targets. Planning units and lessons (utilising C2C planning templates) that are relevant and responsive to the needs, interests and capabilities of our students. An embedded use of ICTs. Community Based Instruction linked to mathematical understanding and concept learning opportunities for students to confidently, willingly and capably transfer their mathematics learning to a variety of contexts. Classroom programs with links to mathematical understanding and concept learning student learning.</td>
<td>Teachers should:</td>
<td>QSA Numeracy Indicators to be completed for all students during Term 1.* Number Development Continuum (First Steps, Western Australia) to be completed annually for all students during Term 4.* Classroom observations, checklists, homework, diagnostic tasks, anecdotal records.</td>
<td>To provide feedback about student progress to parents/carers and administration, teachers will use:</td>
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<td>Middle Phase of Learning</td>
<td>Mathematics teaching to include explicit teaching of: • pattern and sequencing, • concepts of position in space, quantity, comparisons • number • number operations, • time • money and monetary use • measurement of distance, capacity, weight and space. QCIA.</td>
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<td>- One School Reporting Processes.* - Digital images as evidence * - Feedback through ISP planning/Interviews with parents</td>
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*mandatory requirements