



# Whole School Numeracy Agreement

## RATIONALE

At Mid North Education Centre (MNEC), we believe that all students are entitled to a balanced approach to numeracy learning so that they can recognise and understand the role of mathematics in the world, and have the disposition and capacity to use mathematical knowledge and skills purposefully. We are committed to providing a high quality teaching program that ensures consistency across the whole site and allows each child the opportunity to reach their full potential and to become lifelong learners.

## CURRICULUM ACTIONS – WHAT WE TEACH

### Teachers will:

Use the Australian Curriculum Mathematics, ACARA National Numeracy Learning Progressions, ABLES Mathematics and Teaching for Effective Learning (TfEL) as content and pedagogical guides.

- Focus on dedicated learning areas within the Math Australian Curriculum for each term as well as a number focus throughout the whole year.
- Use Numicon as a key resource to implementing the mathematics curriculum; providing a multi-sensory approach to learn about number ideas through seeing and feeling how Numicon Shapes connect with each other.
- Choose additional content for their units of work based on the students' needs in relation to the ABLES Mathematics Curriculum and the following guide:

<b>Counting</b>	<ul style="list-style-type: none"> <li>• Recite the number names in order (the count sequence)</li> <li>• Determine 'how many?'</li> <li>• Count collections (counting one to one)</li> <li>• Count on and back</li> <li>• Use number lines</li> <li>• Make estimates of the size of a collection</li> </ul>
<b>Pattern and Algebra</b>	<ul style="list-style-type: none"> <li>• Complete simple repeating patterns</li> <li>• Understand patterns, direction and orientation</li> <li>• Complete more complex repeating patterns</li> <li>• Identify similarities and differences- sorting</li> <li>• Label repeating patterns with numerals</li> <li>• Understand equivalence- amounts and measures</li> <li>• Identify odd and even</li> <li>• Reason about numbers</li> <li>• Compare amounts and measurements using '&lt;' and '&gt;' symbols</li> <li>• Use the '=' symbol</li> </ul>
	<ul style="list-style-type: none"> <li>• Explore Numicon shapes and baseboards</li> <li>• Match Numicon shapes</li> </ul>

<p><b>Numbers and the Number System</b></p>	<ul style="list-style-type: none"> <li>• Make comparisons to understand bigger</li> <li>• Make comparisons to understand smaller</li> <li>• Match Numicon shapes to pictures of the shapes</li> <li>• Make comparisons using the language of comparison</li> <li>• Learn to order Numicon shapes</li> <li>• Secure ordering of Numicon shape patterns</li> <li>• Begin to learn Numicon shape patterns</li> <li>• Give the Numicon shapes their number names</li> <li>• Label Numicon shapes with numerals</li> <li>• See 'how many' without counting from Numicon shape patterns</li> <li>• Build and name teen numbers</li> <li>• Teen numbers-notation</li> <li>• Compare and order to 20</li> <li>• Count by groups in tens</li> <li>• Explore number lines and count in steps of 10</li> <li>• Structure 2-digit numbers</li> <li>• Structure 2-digit numbers- notation</li> <li>• Count in steps of 2 and 5</li> </ul>
<p><b>Calculating</b></p>	<ul style="list-style-type: none"> <li>• Add- starting with the total</li> <li>• Add – combine to find how many altogether</li> <li>• Add- add more</li> <li>• Subtract- take away</li> <li>• Subtract- decrease</li> <li>• Subtract - difference</li> <li>• Subtract- compare numbers to say how many more to equal</li> <li>• Use the '+' symbol</li> <li>• Use the '-' symbol</li> <li>• Add and subtract 1</li> <li>• Understand money- coin equivalence</li> <li>• Develop fluency- add and subtract with each number to 10</li> <li>• Understand fractions- part-whole relationships</li> <li>• Multiply</li> <li>• Use the 'x' symbol</li> <li>• Everyday division</li> <li>• Use the '÷' symbol</li> <li>• Fractions- explore halve and quarters of wholes</li> </ul>

**LEARNING INTENTIONS**

Students will **know** numbers can be represented using number names, numerals and a picture or set of objects showing the quantity.

Students will **understand** that numbers can be used to count and to find a total.

Students will be able to **do** activities with numbers including matching, counting and finding totals.

## SUCCESS CRITERIA

### Students will:

- Recognise and show interest in Numicon and mathematics resources.
- Count forwards or backwards in sequence and count collections (at their level) when we implement lesson plans that enable students to make connections between materials, language and symbols.
- Demonstrate the skills of Counting Processes, Number and Place Value using augmentative and alternative communication strategies.
- Apply mathematics skills in various real-world contexts.
- Achieve Numeracy One Plan and/or SACE goals.

## ROLES AND RESPONSIBILITIES

### Teachers will:

- Develop and review SMARTAR Numeracy One Plan and/or SACE goals for each student in relation to the MNEC Site Improvement Plan Goals and Targets.
- Identify numeracy demands and teaching opportunities throughout all aspects of the curriculum.
- Clarify lesson intent and student learning goals to both students and SSOs in both verbal and visual terms whenever possible ('I can...' statements and Know. Understand. Do).
- Use and model the language using AAC systems.
- Engage students in the lesson tasks using assistive tools and making other adjustments as listed in the students' One Plans.
- Prepare all resources ahead of time.
- Moderate and annotate student learning and work samples against the student's numeracy goals and using Levels of Support measurements.
- Modify and adjust lessons so that all students can participate.
- Provide the lowest level of prompt and assistance required to enable the students to achieve the success criteria.
- Know and implement 'Numeracy Commitment to Action'.
- Prepare and update learning folios for parent-teacher meetings.
- Use assessments to track and monitor student progress to inform next steps in teaching and learning programs.
- Complete assessments by agreed upon times and prepare resources for moderation.
- Place all assessment data in student assessment folders after completion.
- Update all student assessment profiles each term.
- Update individual student assessment profiles.
- Provide Termly Overviews to the Principal by Friday Week 1 of each term.
- Provide Termly Overviews to families by Friday Week 2 of each term.
- Provide numeracy planning documentation to the Principal by Friday week 1 of each term.

- Plan Math and Numeracy lessons using the provided template specific to the term and ensure the plans are meeting the terms focus.
- Provide numeracy rich environments:
  - Visuals, calendars, number displays, schedules, signs and directions.
  - Numicon resources.

**SSOs will:**

- Follow teacher instruction and routines implemented within the learning.
- Ensure they understand the students' One Plan goals and success criteria ('I can...' statements).
- Provide the lowest level of prompt and assistance required to enable the students to achieve the success criteria.
- Measure and track student progress in relation to the success criteria.
- Report to and communicate with their class teacher about the success criteria.
- Moderate and annotate student learning and work samples against the student's numeracy goals and using Levels of Support measurements.
- Know and implement 'Numeracy Commitment to Action'.

**Leaders will:**

- Gather student numeracy data and use it to inform school practices including Tier 1-3 supports as needed.
- Monitor implementation and provide ongoing support in implementing Numicon as a resource to teach numeracy understanding.
- Maintain staff capacity through organising and providing ongoing training opportunities and regular feedback through observations.
- Collaborate with all staff to implement and provide school-wide common language, visuals, and strategies.
- Support staff understanding and implementation of 'Numeracy Commitment to Action'.

**MONITORING STUDENT PROGRESS**

- Teachers will monitor student progress by collecting and analysing a range of data through different processes at allocated times of the year:

Assessment	Term 1	Term 2	Term 3	Term 4
<b>ABLES</b> - Maths	Weeks 3-4		Weeks 3-4	
Assessment Tool 1: <b>Assessment Signposts (Numicon)</b>		Weeks 2-3		Weeks 2-3
Assessment Tool 3: <b>Child Profile (Numicon)</b>	To be completed throughout the year.			
Term Focus Pre-Assessment:	To be completed between week 8 the previous term and week 1 of the teaching term.			

**REPORTING ON ACHIEVEMENT**

All teachers will formally report twice per year (Terms 2, 4), in writing to students and their parents/carers about the students' progress and achievement in relation to the Australian Curriculum: Mathematics achievement standards / ABLES Mathematics, and the students individualised SMARTAR One Plan Numeracy goal (**Developing. Practicing. Applying.**). Parent interviews will occur in Terms 1 and 3 or at any other negotiated time.

**Term 1:** Parent Interviews, One Plan SMARTAR Numeracy Goals / SACE Goals

**Term 2:** Written Student Reports, Learning Folio

**Term 3:** Parent Interviews, One Plan SMARTAR Numeracy Goals / SACE Goals

**Term 4:** Written Student Reports, Learning Folio

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