

# Freeling P - 6 Numeracy Agreement



At Freeling Primary School, we believe that all students should be numerate. Our vision is for students to receive high quality teaching in mathematics to support the development of rich mathematical knowledge and understanding, a positive growth mindset towards maths and numeracy; and the ability to apply mathematical skills confidently in their daily lives.

### Quality Curriculum

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 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.

*Our Preschool practices are consistent with the Early Years Learning Framework and Numeracy Indicators.* 

Our school practices are consistent with the Australian Curriculum outcomes and achievement standards. http://www.australiancurriculum.edu.au

The Numeracy General Capability and Cross Curricular Priorities are incorporated across all learning areas.

The National Numeracy Progressions, describe the progression of skill development required for students to gain mastery in each concept.

#### **Quality Teaching**

*Effective Teaching Pedagogy / High Impact Teaching Strategies:* 

At Freeling PS we believe it is essential to present a 'Whole School' approach to the teaching and improvement of mathematics guided and informed by the analysis of current data. We are committed to building the capacity of staff, so they are able to design high quality learning experiences that engage and challenge all students. We will encourage curiosity, engagement, risk taking and self-reflection in numeracy.

#### Teachers will:

• Ensure our school practices are consistent with the EYLF / Australian Curriculum outcomes and Achievement Standards and DfE Scope & Sequence and requirements P-6

• Develop a program of logical and intentional lesson sequences that incorporate the Big Ideas in Number, Natural Maths strategies and the 4 proficiencies: Fluency, Understanding, Reasoning & Problem Solving.

• Articulate the **learning intentions and success criteria** (derived from the EYLF / AC) with students and parents (e.g. Term overviews, learning goals, learning intentions shared with students/parents)

• Explicitly teach mathematical **vocabulary**, strategies of **problem solving strategies** (STAR) and mathematical concepts in a 3 part lesson structure of: Mental Routines, Problematised Situations and Reflection.

• Provide targeted differentiated teaching; supporting students in achieving their learning goals.

• Provide timely advice and actionable feedback for all students including next steps in learning.

• Allocate a minimum of 300 minutes per week of mathematics

| Consistent Core Strategies and Concepts               |   |   |   |   |   |   |  |  |  |
|---|---|---|---|---|---|---|--|--|--|
| Mental Computation – Ann Baker strategies             | Р | R | 1 | 2 | 3 | 4 |  |  |  |
| Subitise, Count All, Count On/Back and Doubles.       |   |   |   |   |   |   |  |  |  |
| Number lines 0-10                                     |   |   |   |   |   |   |  |  |  |
| Turnarounds, Rainbow Facts, halves & Friendly         |   |   |   |   |   |   |  |  |  |
| Numbers   |   |   |   |   |   |   |  |  |  |
| Bridge through to 10 and extend number facts; Count   |   |   |   |   |   |   |  |  |  |
| on 10, 20, 30 Doubles and Near Doubles, Rainbow Facts |   |   |   |   |   |   |  |  |  |
| to 100 & Friendly No's                                |   |   |   |   |   |   |  |  |  |
| Landmark Numbers, Tallies, Rainbow Facts linked to    |   |   |   |   |   |   |  |  |  |
| Number Splitting, halving.                            |   |   |   |   |   |   |  |  |  |
| Rounding and Round & About                            |   |   |   |   |   |   |  |  |  |
|   |   |   |   |   |   |   |  |  |  |

| Big Ideas in Number – Di Siemon               | Р | R | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| Trusting the Count – developing flexible      |   |   |   |   |   |   |   |   |
| mental objects for the numbers 0 - 10         |   |   |   |   |   |   |   |   |
| Place Value – the importance of moving        |   |   |   |   |   |   |   |   |
| beyond counting by ones, the structure of the |   |   |   |   |   |   |   |   |
| base 10 number system                         |   |   |   |   |   |   |   |   |
| Additive and Multiplicative Thinking –        |   |   |   |   |   |   |   |   |
| developing efficient mental written           |   |   |   |   |   |   |   |   |
| computation strategies                        |   |   |   |   |   |   |   |   |
| Partitioning – building common fractions and  |   |   |   |   |   |   |   |   |
| decimal knowledge and confidence              |   |   |   |   |   |   |   |   |
| Reasoning – needed to solve problems          |   |   |   |   |   |   |   |   |
| involving fractions, decimals, percentage,    |   |   |   |   |   |   |   |   |
| ratio, rate and proportion                    |   |   |   |   |   |   |   |   |
| Generalisation – fundamental to engage with   |   |   |   |   |   |   |   |   |
| broader curricula expectation                 |   |   |   |   |   |   |   |   |

# **Monitoring Student Progress**

Student progress in numeracy is monitored by the regular collection and analysis of data. Formative assessment practices inform teaching and learning pedagogy and programs. A focus on questioning, providing feedback and student reflection is required. Scorelink is used to collate data. A variety of diagnostic, formative and summative of assessments are used.

| Assessment      | PS | Rec | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Notes  |
|-----------------|----|-----|------|------|------|------|------|------|--|
| NAPLAN          |    |     |      |      |      |      |      |      | Completed in March from 2023 (specific dates given year by year)   |
| PAT-Maths       |    |     |      |      |      |      |      |      | Completed in October (online)  |
| BliN Screening  |    |     |      |      |      |      |      |      | Completed in the first 5 weeks of Term 1 and throughout the year as needed for students not<br>"green" (T drive). Reception students to be screened when "ready" |
| Preschool       |    |     |      |      |      |      |      |      | Preschool Numeracy Indicators  |
| Moderation      |    |     |      |      |      |      |      |      | Notes  |
| Team Moderation |    |     |      |      |      |      |      |      | Moderation of Numeracy tasks, within teaching teams throughout the year.   |
| Reporting       |    |     |      |      |      |      |      |      | Written reports in Term 2 and Term 4 to reflect the wording of the relevant AC Achievement Standard or EYLF  |

## Intervention

Students who are at risk of not meeting Standard of Educational Achievement (SEA) have access to additional support or programs.

Staff use a range of data, including Preschool Numeracy Indicators, BliN screening, PAT Maths and NAPLAN, to identify needs of students. Staff then develop and monitor appropriate intervention. This may include:

- Support within the class
- Small group support using programs such as Quick Smart, Toosmart, Big Ideas in Number/M4LI and Numeracy First Groups
- 1:1 or small group support with SSO's and planned by teachers.
- One Plans with individually set goals.

## Resources

FPS Numeracy Blog, Natural Maths, Big Ideas In Number, Maths for Learning Inclusion, DfE Units, Top 10, NZ Maths, NRich, Nelson Maths, ACER (Teacher Resource Centre), Maths 300, Back to Front Maths, Rich Learning Tasks, Rainforest Maths, Task Centre Tasks, Western region Tasks, Digital Mathematics Tools, First Steps, Mastery Maths

## **Professional Development**

Professional Development in Numeracy will reflect our SIP priorities and DfE priorities. It will include access to current pedagogies, induction and support for new staff, shared professional learning experience across the site.