# CONTINUITY OF LEARNING PLAN: NUMERACY

CLARENDON PRIMARY SCHOOL EST. 1885

## Numeracy Agreement:

At Clarendon Primary School our vision is for students to receive high quality teaching in mathematics to support the development of rich mathematical knowledge and understanding, a positive mindset towards maths and numeracy; and the ability to apply mathematical skills confidently in their daily lives.

***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.*
  www.australiancurriculum.edu.au

## Effective Teaching / Quality Curriculum / Pedagogy:

At Clarendon 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.

**Teachers will:**

- Ensure our school practices are consistent with the Australian Curriculum outcomes and Achievement Standards and DECD requirements R-7
- Allocate a minimum of 300 minutes per week of mathematics
- Articulate the learning aims and expected learning intentions with students and parents (e.g. Term overviews, learning goals, learning intentions shared with students/parents 2-3 times per term)
- Ensure numeracy skills and knowledge are integrated across all subject areas
- Encourage curiosity, engagement, risk taking and self-reflection in numeracy
- Foster a positive approach to powerful learning and growth mindsets in numeracy.
- Explicitly teach mathematical strategies
- Incorporate the Big Ideas in Number and Natural Maths strategies into teaching programs and incorporate the 8 effective practices in numeracy B-18

## Consistent core strategies & concepts:

**Mental Computation – Ann Baker strategies**

| | 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**

| | R | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| **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 | | | | | | ■ | ■ | |
| **Proportional Reasoning** – needed to solve problems involving fractions, decimals, percentage, ratio, rate and proportion | | | | | | | ■ | ■ |
| **Generalisation** – fundamental to engage with broader curricula expectations | | | | | | | ■ | ■ |

## Agreed High Impact Teaching Practices.

**TARGETED DIFFERENTIATED TEACHING**: Teachers will build on what each individual learner knows and use this information to identfy and scaffolds future learning needs; use data to inform stretch and enrichment priorities; and track and montior progress and efficacy using specific measures.

**LOGICAL AND INTENTIONAL SEQUENCING OF THE LEARNING:** Tecahers will: build connections in learning using well sequenced, manageable and intentional steps; vary the steps according to student needs; support students to develop their own learning goals; and support the gradual expansion of skills and knowledge in each child,

**CLEAR LEARNING INTENTIONS:** Staff will develop and communicate clear learning intentions for a sequence of learning. Students will know what is expected. Goals are challenging and specific, success criteria are explicit and transparent and learners understand what success means. Students experience clear transitions between lessons and predictable routines.

**EXPLICIT TEACHING** Teaching practice will show students what they need to do to be successful and how through: clear learning intentions and instructions; correcting misconceptions; promoting cognitive strategies; teaching sequentially; and allowing practice time. Learning is scaffolded to support gradual release.

**MULTIPLE APPROACHES:** Teachers use a variety of approaches to instruction; use effective questioning, design mulitple exposures and representations and include collaborative learning.

**ONGOING FEEDBACK:** Teachers will provide timely advice and actionable feedback for all students using differentiated methods. Feedback and assessment are formative and may include peer, small group and individual feedback.

## Agreed Evidence Based Best Practices for Numeracy Improvement

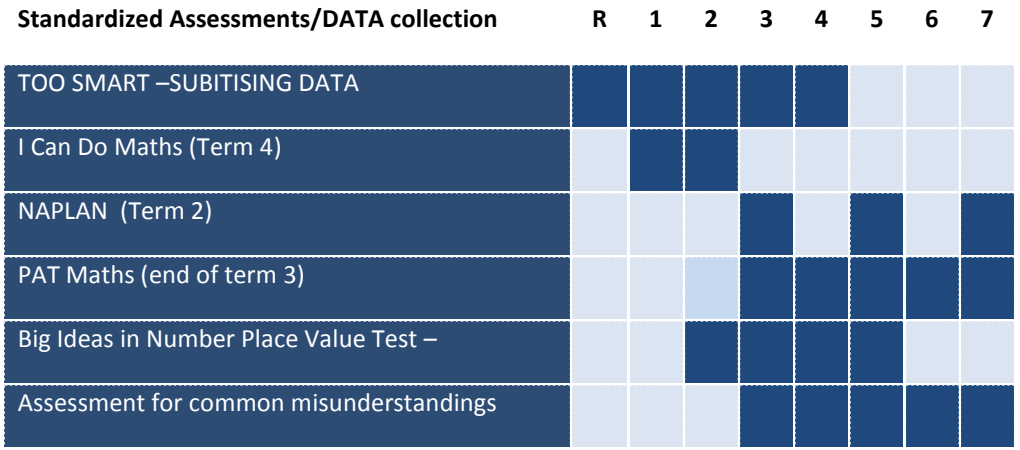
1. **Extending students in mathematics through collaborative guided inquiry.**
2. **Extending student number sense to accelerate learning.**
3. **Building visualisation skills to deepen mathematics learning.**
4. **Generalising and building abstraction in mathematics.**

*These strategies incorporate aspects of collaborative learning, feedback, peer tutoring, meta-cognition, reading comprehension strategies, self-regulation and language interventions, as described in L&N 1st PY Focus guide.*

## Monitoring Student Progress

Student progress is monitored by collecting a range of data through different processes which may include:

- Evidence Collection– formative assessment, rubrics, anecdotal data, observations, photographs, checklists.
- Summative data is used to inform teaching and learning goals and site priorities
- A commitment to moderation on a regular basis using work samples collected.
- Reporting to parents as required including interviews (Term 1-3) and written reports (end of Term 2 and Term 4).
- A range of self / peer assessment strategies and processes including maths journals.
- Open book and practice tests and maths mate data
- Pre-tests and post-test.




### DATA collection and analysis:

Data analysis will be on a i) Whole School level
ii) Class level
iii) Individual student level

Data will be used to inform classroom practice site improvement objectives and inform the Learner Enrichment Team. Data collected is informative, useful and relevant. Students can engage with their own data when and where appropriate.