



## Numeracy Approach @ RPS

Our shared vision is for all students to receive high quality teaching in mathematics to support the development of rich mathematical knowledge and understanding and for all students to apply mathematical skills with confidence 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 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. <http://www.australiancurriculum.edu.au/>

## Quality Curriculum

- Our school practices are consistent with the Australian Curriculum outcomes and Achievement Standards and DECD requirements R-7
- A minimum of 300 minutes per week of mathematics is taught
- Mathematics proficiencies are integral to planning
- General capabilities and Cross-curriculum priorities are incorporated
- Teachers articulate the Australian Curriculum scope and sequence and expected learning with students and parents (e.g. *Top 5's, term overviews, learning goals*)
- Numeracy skills and knowledge are integrated across all subject areas



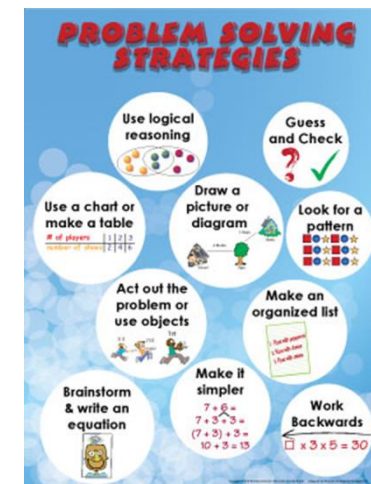
**UNDERSTANDING** **PROBLEMSOLVING**  
**FLUENCY** **REASONING**  
**Mathematics Proficiencies**

## Quality Teaching

- Teachers from R-7 are using a common methodology – including lesson structure, problem solving approach and common language
- Teachers are implementing a daily numeracy block (*engagement/mental routine, problem solving/strategy lesson, reflection*)
- A balance of discovery and inquiry, explicit teaching and problem solving are central to the mathematics teaching
- The Natural Maths secret code strategies are explicitly taught (RPS Scope & Sequence)
- Planning and implementation of learning programs is influenced by the DECD TFEEL framework
- Teachers share practice and provide feedback through Co-Coaching observations
- Teachers follow the 'I do, We do, You do' approach to introducing new concepts
- Students receive targeted feedback aligned to learning goals and curriculum outcomes
- Units of work are problem orientated with a focus on real-life and relevant situations.
- RPS whole school scope & sequence for teaching problem solving strategie
- Problems allow for differentiation and multiple entry points
- Students learn to reason mathematically and reflect on their learning
- Collaboration and communication is encouraged and promoted – developing a community of learners
- Teaching is supported by a range of quality and age-appropriate resources
- Professional Learning Communities plan, implement and review units of work
- The community is engaged through parent workshops, open mornings, competitions and whole school events

### Lesson Structure

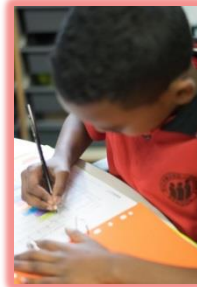
- 1- 2-5 mins warm up
- 2- Learning Intention (+real life connections)
- 3- Explicit teaching (group, individual, investigations, problem solving, game)
- 4- Check for understanding (what are you looking for?)
- 5- Reflection –Discussion (main points of the lesson, future learning)



## Monitoring Student Progress

We monitor student progress by collecting a range of data:

- NAPLAN (Years 3, 5 and 7 students tested each year)
- PAT-M and ICDM (growth point data and descriptor scales)
- Summative data is used to inform teaching and learning goals and site priorities
- Evidence- Formative assessment, rubrics, anecdotal data, observations, photos and checklists
- A commitment to moderation on a termly bases using work samples collected
- Reporting to parents (mid and end of year)
- Intervention for students in mathematics across a range of achievement levels through M4LI for R-3 and 4-7 Quicksmart Intervention
- Reflex Maths Years 3-7 (minimum 15min x 3 per week)
- Standardised tasks (e.g. W.A.R summative assessment tasks)
- Student achievement data and class assessment data is recorded using SPA software



STANDARDISED TESTS	Rec	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
BlIN Place Value Test/George Booker			✓	✓	✓			
NAPLAN (May)				✓		✓		✓
I Can Do Maths (Sept)	✓	✓						
PAT-Maths (Sept)			✓	✓	✓	✓	✓	✓

Mental Computation Strategies	Rec	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Subitising, Count All, Count On, Rainbow Facts, Doubles	✓	✓						
Count on 1,2,3, Turnarounds, Doubles, Near Doubles, Rainbow Facts, Friendly Numbers		✓	✓					
Count on 10, 20, 30, Bridge through 10, Doubles/ Near Doubles, Rainbow Facts to 100, Friendly Numbers			✓	✓				
Landmark Numbers, Tallies, Rainbow Facts to 100, Number Splitting				✓	✓			
Rounding, Round and Adjust, Landmark Numbers (decimals, percentages, fractions), Estimation					✓	✓	✓	✓

## Resources

NATURAL MATHS	ICTS	EQUIPMENT
Natural Maths Strategies Books – Beginning, Level 1- Level 4	iPads plus mathematics apps R-7	<b>Manipulatives, Teaching Tools &amp; Resource Books</b> Stored in the teacher resource library and organised into the Australian Curriculum Strands <ul style="list-style-type: none"> <li>• Number &amp; Algebra</li> <li>• Measurement &amp; Geometry</li> <li>• Statistics &amp; Probability</li> </ul>
Problem Solving Books - Level 1-Level 5	Reflex Maths, iMaths, Maths On Line	
Linear Measurement – Books 1- Book 3	Study Ladder <a href="http://www.studyladder.com.au">http://www.studyladder.com.au</a>	
Natural Maths Strategies for Parents – Book 1/Book 2	Skoolbo <a href="http://skoolbo.com.au/">http://skoolbo.com.au/</a>	
Interactive Software – Dice Strings, Coin Mat, 100 Square, Calendars, The Card Game	Teaching Resources -Staff Common, Mathematics Resources	STAR posters & Natural Maths strategies posters (lower primary/ middle primary)

ONLINE PLANNING RESOURCES	
Australian Curriculum (ACARA)	<a href="http://www.australiancurriculum.edu.au">http://www.australiancurriculum.edu.au</a>
West Torrens Partnership Mathematics Wiki	<a href="http://westtorrenspartnership.wikispaces.com/">http://westtorrenspartnership.wikispaces.com/</a>
West Torrens Partnership Edublog	<a href="http://westtorrenspartnership.edublogs.org/">http://westtorrenspartnership.edublogs.org/</a>
English@PPS Edublog Maths page	<a href="http://englishatpps.edublogs.org/category/maths/">http://englishatpps.edublogs.org/category/maths/</a>
West Torrens Partnership Pinterest Boards	<a href="http://www.pinterest.com/westtorrensp/">http://www.pinterest.com/westtorrensp/</a>
DECD Leaders Resource	<a href="http://www.acleadersresource.sa.edu.au/">http://www.acleadersresource.sa.edu.au/</a>
Scootle	<a href="http://www.scootle.edu.au">http://www.scootle.edu.au</a>
Australian Professional Standards for Teachers	<a href="http://www.aitsl.edu.au/australian-professional-standards-for-teachers">http://www.aitsl.edu.au/australian-professional-standards-for-teachers</a>

