

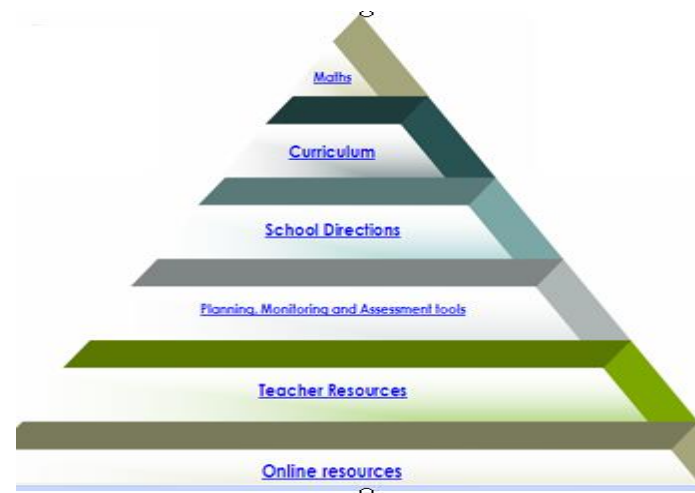
# Success Primary School

## Mathematics Operational Plan 2016 -2017

### Unlock Your Potential



Success Primary School



# SUCCESS PRIMARY SCHOOL – Mathematics Operational Plan 2016 – 2017

All Staff will use

- The Western Australian Curriculum and SCISA, for planning, assessing and reporting
- EYLF embedded across the Early Year K-2
- Kindy Guidelines and NQS documents and used support planning, assessing and reporting
- All Staff will continue to use First Steps to explicitly teach Numeracy strategies and processes
- For students with Special needs, SEN will be used for planning, assessment and reporting
- Use the Success PS Mathematics Monitoring Tool in all strands and update each term
- Proficiency Strands underpin the learning of Mathematics concepts

**High Expectations**

**Differentiated Curriculum**

**Evidence Based Teaching**

**Academic Rigour**

GOALS	STRATEGIES	MONITORING
<p>ATSL Standard 1,2,3</p> <p>NQA 1,</p> <p><b>1. Evidence based teaching practices are embedded across the whole school and ensure consistent teaching and learning expectations.</b></p>	<ul style="list-style-type: none"> <li>• Teachers will engage in a specific block of time for numeracy of a minimum 4 times per week. This includes at least 2 sessions of Number &amp; Algebra, two sessions to be shared between Measurement, Geometry and Statistics &amp; Probability</li> <li>• Calculate strategies are to be explicitly taught to develop understanding and opportunities provided daily to practice to develop fluency, problem solving and reasoning. Provide take home practice packs linked with goal setting and IEPS.</li> <li>• Cover all Proficiency Strands through a hands-on (manipulatives) approach, use of <b>think boards</b>, <b>reflective journals</b> and <b>instructional strategies</b>.</li> <li>• Use the Success PS Monitoring Tool in all strands and update each term to support identification of targeted groups, planning, monitoring and reporting.</li> <li>• Regular collaborative planning (DOTT) and review meetings with classroom teachers to ensure a common approach to teaching and learning throughout the school.</li> <li>• Induction of new staff in school numeracy resources, programs and planning</li> <li>• Teachers create (with children) a Maths rich classroom environment. Use environmental print in their classrooms with an emphasis on the language of Mathematics engaging in word walls and goal setting.</li> <li>• Teachers will use the whole school Math Language Scope and Sequence to support the development of visual word walls.</li> <li>• Teachers continue to use First Step Books strategies to explicitly teach Numeracy content and skills.</li> <li>• The Numeracy Committee and leadership team will provide guidance in collaborative planning sessions to ensure a consistent approach to teaching and learning across the school.</li> <li>• The Gradual Release Model will be used across the school – I do, We do, You do. The intent/purpose of</li> </ul>	<p><b>Success Primary School Monitoring Tool</b></p> <p>NAPLAN Years 3 &amp; 5</p> <p>Diagnostics and Common Assessments</p> <p>Instructional strategies scope and sequence</p> <p>On Entry Data</p> <p>Hand over files</p> <p>Teacher records</p> <p>At Risk - Student tracking profile</p> <p>Timetable/Roster</p> <p>Data wall in each classroom for Calculate Strategies</p>

	<p>the lesson will be clearly stated at the start of the lesson and all lessons will allow time for review/reflection/plenary at the end of a session.</p> <ul style="list-style-type: none"> <li>Collaborate in developing programs and rotate shared resources.</li> </ul>	
<p>ATSL Standard 3,4,5</p> <p><b>2. Data used to inform Plan, Teach and Assess cycle</b></p>	<ul style="list-style-type: none"> <li>The Mathematics monitoring tool will be used from K-6 and ES will use the Performance description individual monitoring profiles. The monitoring tools will be used as transition documents for the following year.</li> <li>Follow the Success Mathematics Assessment and Diagnostic Grid</li> <li>Data is used to identify starting points for improvement and to monitor progress over time.</li> <li>Year level groups to meet regularly during collaborative planning time to monitor the Operational Plan</li> <li>Use On-Entry Data in Pre Primary – Year 1 &amp; 2 to create personalised plans for at risk students.</li> <li>Use of NAPLAN in years 3 and 5 to create plans targeting student needs and use the online NAPLANNER tools for planning.</li> <li>Teachers will utilise SCSA Grade Descriptors (Judging Standards) and the Western Australian Curriculum standards to guide planning and assessment.</li> <li>Case Management/Conference – as required to discuss numeracy achievement and intervention programs. Individual, personal and group educational plans to inform intervention programs both in and out of the classroom differentiation and intervention. GEPs/IEPs for SAER students use SMART goal for targeted intervention.</li> <li>Develop short term and long term targets and meet collaboratively to assess progress towards these.</li> <li>Student Handover Files are created for each student in the school. These follow the students through their schooling to enable teaching staff to monitor and track progress.</li> <li>School leadership team for Mathematics will regularly work with teams to review achievement data and engage in moderation related to math.</li> </ul>	<p>Case management plans/programs</p> <p>Moderation within and across Collaborative Teams during Common DOTT and across the CCEN in Term 3</p> <p>Success Primary School Monitoring Tool</p> <p>NAPLAN analysis and On Entry Assessments (PP-Yr1) used to identify 'targeted' students/groups</p>
<p>ATSL Standard 1,2,3,4,5</p> <p><b>3. Educative and valid feedback will be provided regularly to students, teachers, parents</b></p>	<ul style="list-style-type: none"> <li>Feedback will include over the shoulder marking, conferencing, goal setting and reflection (individual, group, whole class and cohort).</li> <li>Feedback to be specific and linked to high expectations using judging standards as a guide.</li> <li>Students and parents involved in documented plan development, monitoring and evaluation (IEP, GEP)</li> <li>Staff will use the School Curriculum and Standards Authority – Assessment Principle and Practice – Judging Standards document as a basis for describing student achievement and for giving assessment feedback.</li> </ul>	<p>Leadership team to support staff in providing feedback about practise and from classroom observations</p> <p>Curriculum conversations and</p>

		performance management (ATSL standards)
<p>ATSL Standard 1,2,3,5</p> <p><b>4. Focus on age appropriate instruction for students in Mathematics</b></p>	<ul style="list-style-type: none"> <li>• K- 2 engage in the daily practise of 100 days of school until the end of the year and celebrate the 100 day with Math activities.</li> <li>• Use Proficiency Strands in whole school <b><u>scope and sequences</u></b> <ul style="list-style-type: none"> <li>○ Calculate strategies</li> <li>○ Language of Mathematics for Number, Measurement, Geometry, Statistics and probability</li> <li>○ Mathematics Curriculum (WAC) Scope and Sequence</li> </ul> </li> <li>• Think boards for problem solving</li> <li>• Mathematics number Trajectories Scope and Sequence</li> </ul>	<p>Mathematics curriculum conversations</p> <p>Use of scope and sequences</p> <p>Monitoring Tool</p>
<p>ATSL Standard 2,3,4,5,6,7</p> <p>NQA</p> <p><b>5. High quality teaching with leadership workforce development</b></p>	<ul style="list-style-type: none"> <li>• Engage in agreed to research and evidence based teaching practices – First Steps strategies (think boards and calculate strategies), trajectories, whole school scope and sequences</li> <li>• Develop whole school approaches to improve teacher quality using the Australian Professional Standards for teachers as the basis through: targeted Professional Learning, Coaching - Performance Management/Development and building professional collaborative culture (Focus 2015)</li> <li>• Increase teacher peer review and classroom observation as improvement tools. (Focus 2015)</li> <li>• Staff across the school participating in committees and sharing the knowledge and decisions to like year groups i.e. team leaders, curriculum student services</li> <li>• Whole school, team and individual (when required) PL on catering for students at educational risk and writing documented plans</li> <li>• Staff participate in CCEN and share information/focuses with Success Staff</li> <li>• Engage in Success &amp; CCEN Moderation</li> </ul>	<p>Professional Learning linked with Performance development, logged on TRB</p> <p>Performance Development linked to the ATSL standards</p> <p>Peer observation timetabled and guiding formats</p>
<p>ATSL Standard 3, 6,7</p> <p>NQA</p> <p><b>6. Working with families and community to build engagement and connections</b></p>	<ul style="list-style-type: none"> <li>• Link Math programs with General Capabilities and Cross Curriculum Priorities with whole school celebrations <ul style="list-style-type: none"> <li>○ NAIDOC</li> <li>○ Multicultural day (Term 1)</li> <li>○ Harmony day (Monday 21)</li> <li>○ National Literacy and Numeracy week family event (Term 3)</li> </ul> </li> <li>• Ensure/ encourage parent representation in key decision –making processes</li> <li>• Build relationships that empower parents/carers to participate in their children’s Mathematics learning by providing parent workshops, booklets, newsletters, classroom program information, kindy induction</li> <li>• Home practice packs to support Calculate Strategies linked with IEPS and goal setting</li> </ul>	<p>Parent, staff and student feedback</p> <p>Number of parents attending events</p>

## Mathematics Targets

Year	Area of Numeracy	2016 Targets (to be achieved by the end of the year)
<b>K</b>	Number Knowledge	80% of cohort able to read and say the number names to 10 in sequence forwards and backwards
	Principles of Counting - Subitising	80% of cohort able to subitise regular formations to 4
	Measurement – Comparing Length and Mass	Students exposed to and given opportunities to explore Length and Mass concepts through - environmental print incorporate rules of measurement and word walls of vocabulary associated with Measurement
<b>PP</b>	Principles of Counting - Subitising	80% of cohort able to subitise to 6 – irregular formations
	Number – Principals of counting	90% of cohort achieving a C or higher standard in this area (Connects a number name with numerals and quantities up to 20)
	Measurement – Rules of measurement	All students of cohort can recognise and demonstrate the rules of measurement.
<b>Year 1</b>	Number knowledge	80% cohort can read, write and say numbers to 110
	Measurement – Time	80% cohort can tell the time to the half hour
	Number – Money and Financial mathematics	80% of cohort achieving a B or higher standard in this area - Orders Australian coins according to their value (100 cents + \$1)
<b>Year 2</b>	Number – Patterns Algebra	All students will be able to solve problems (number + word) using addition and subtraction
	Number – Money and Financial mathematics – Count and order collections	80% cohort achieves a C or higher standard in this area (count and orders a small collection of Australian coins according to their value) <b>Adding numbers together to give a total amount?.</b>
	Measurement – Time	60% of Cohort can tell the time to the quarter hour
<b>K-2</b>	On Entry Data (Assessed at beginning of the year)	Maintain or increase current percentage of student achieving at or above PP = 0.5, Year 1 = 1.0, Year 2 = 1.5 ?
<b>Year 3 – 6</b>	Number – Patterns and Algebra - Word Problems	All student will achieve a satisfactory 'C' grade or above in their year level using the SCSA judging standards ( those students not achieving will be on an individual plan)
	Number Calculate – inverse relationship (+ -) (x ÷)	
	Number – Fractions and Decimals	
	Measurement - Mass	
	Measurement – elapsed time and conversion of time	
	Meas/Geo – measure & interpreting scales Geometry – Angles	

Year	Strategies	Resources	
		Physical	Electronic
All	<b>Hands on teaching materials</b>	All Math resources Classroom resource boxes and activity guides Paul Swan books & resources	Resource Audit hard copy, Connect, or S:\CurricShared\All Staff\Numeracy\Mat Resources\Numeracy resource audit
	<b>Teaching strategies</b>	Instructional strategies Gradual Release Posters First Steps books	Success Numeracy package master\NumeracySupport Package\Planning Monitoring tls\Teaching Tools
	<b>Number strategies (trajectories) Inverse relationships</b>	Number Trajectories by Paul Swan/ Kelly Norris/ Kristen Humphreys First Steps Understand Operations page 28, 40, 52 Calculate page 114	<a href="http://www.drpaulswan.com.au">www.drpaulswan.com.au</a>
	<b>Calculate strategies (+ Scope and Sequence)</b>	Calculate Strategy Folder K-2, 3-6 Flash Cards Posters Mastery Folder Home Practice Packs Resource crates i.e. cards/dice/dominos Paul Swan books First Steps calculate page 132	<a href="#">Success Numeracy package master\NumeracySupport Package\Resources 1\Number Algebra\Number and Algebra\Added packages\Calculate resource package</a>
	<b>Fractions</b>	First Steps Fractions page 91 Calculate page 156	
	<b>Algebra (subitising, partitioning, PPW and patterns)</b>	Calculate Folder First Steps Understand Number pg 20 Understand Operation Reason about Number patterns page 199	<a href="#">Success Numeracy package master\NumeracySupport Package\Resources 1\Number Algebra\Number and Algebra\Added packages\Calculate resource package</a>
	<b>Problem solving</b>	Think boards and word problems First Steps Understand Operation page 87, 89	<a href="#">Numeracy Package – resources – Number and Algebra – Problem Solving</a>
	<b>Measurement (+ Scope and Sequence)</b>	Measurement Crates Measurement Folders (in block) <ul style="list-style-type: none"> <li>• Mass</li> <li>• Capacity</li> <li>• Length</li> <li>• Area</li> <li>• Time</li> </ul> First Steps Measurement books	Success Numeracy package master\NumeracySupport Package\Resources 1\Measure Geometry (posters/word walls)
	<b>Geometry (+ Graph and Tally Scope and Sequence)</b>	Geometry Folders First Steps Space	Success Numeracy package master\NumeracySupport Package\Resources



			1\Measure Geometry
	<b>Statistics and Probability (+ Language Scope and Sequence)</b>	Stat & Prob folders First Steps Chance and Data books	Success Numeracy package master\NumeracySupport Package\Resources 1\Statistics Probability
	<b>Reflective Journals</b>	Reflective Journal packs	Success Numeracy package master\NumeracySupport Package\Planning Monitoring tls\Teaching Tools
	<b>MoneySmart</b>	Money Smart Folders	Website: <a href="https://www.moneysmart.gov.au/">https://www.moneysmart.gov.au/</a>
	<b>Student Services</b>	Student services folder with timeline, SSEN template for IEPs and GEPs	
<b>K-2</b>	<b>100 Days of school</b>	Folder	Found on <u>Numeracy Package</u> – resources- 100 Days
	<b>Explicitly teach and assess the Principles of Counting</b>	First Steps Understand Number page 12	Principles of Counting support resources are found in <u>Numeracy Package</u> – Resources – Number and Algebra – K-PP
<b>3-6</b>	<b>Numero</b>	Cards – Library Player boards – Numeracy Office	

## Assessment & Diagnostics

	What	When	Who	Where
<b>Number &amp; Algebra</b>	Number Grid	Term 1, 2, 3 & 4	K-6	Success Numeracy package master\NumeracySupport Package\Diagnostics. Assessments\Number Algebra
	Operations - Think Board	Term 2 & 4		
	Calculate Strategies	Term 1, 2, 3 & 4		
	Patterns & Algebra	Term 2 & 4		
<b>Measurement</b>	Length	Term 2 & 4	K-6	Success Numeracy package master\NumeracySupport Package\Diagnostics. Assessments\Measurement
	Mass			
	Capacity			
	Time			
	Area			
<b>Geometry</b>	Shape	Term 2 & 4	K-6	
	Location			
	Transformation			

**Teachers engage in moderation of work samples in Terms 2 & 4**