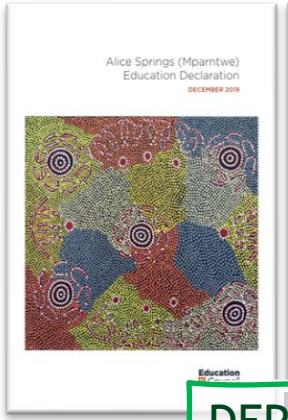
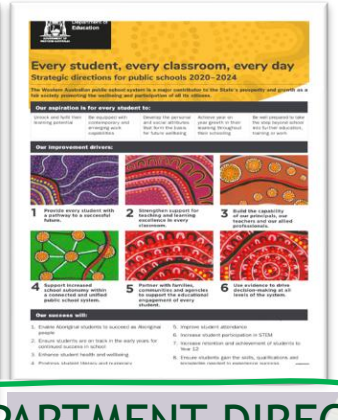
SKPS Mathematics

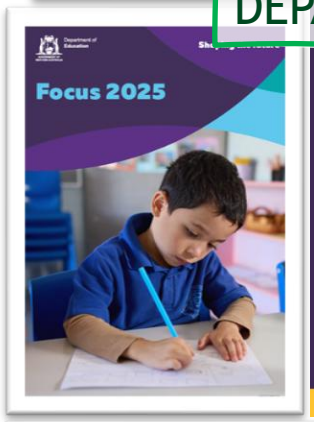
OPERATIONAL PLAN

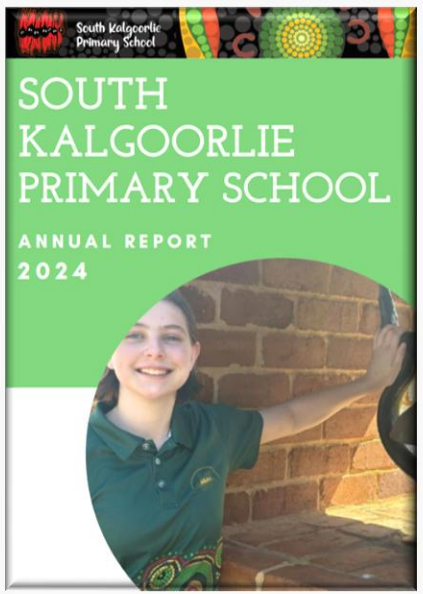
2026





DEPARTMENT DIRECTIVES





2025 SKPS Operational Plan

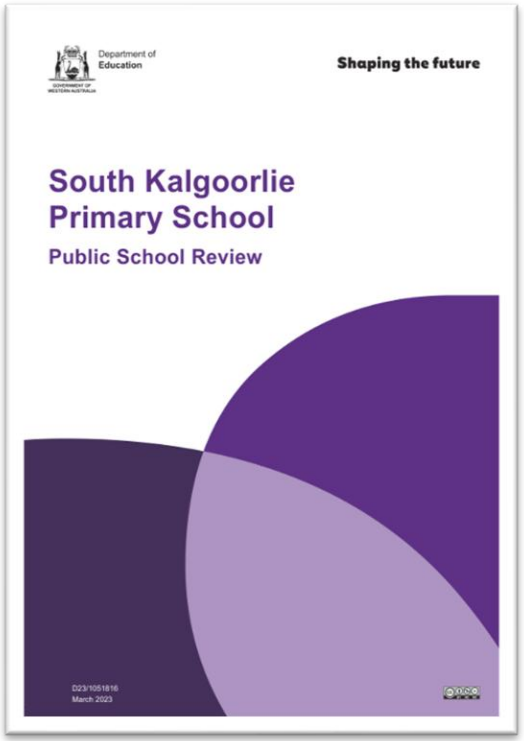
This plan aims to outline strategies that action the School Plan and Public-School Review. It also includes all South Kalgoorlie Primary School Operational Planning and Documents into one consistent plan.

SCHOOL PLAN PRIORITY AREAS KEY

- SFAS: Success For All Students
- SEH: Social and Emotional Health
- ICT: Information & Communication Technologies
- EY: Early Years

2023 PUBLIC SCHOOL REVIEW RECOMMENDATIONS KEY

- Relationships and partnerships recommendations: RP Recommendation
- Learning Environment Recommendations: LE Recommendation
- Leadership Recommendations: L Recommendations
- Use of Resources Recommendations: UR Recommendations
- Teaching Quality Recommendations: TQ Recommendations
- Student achievement and Progress Recommendations: SAP Recommendations



Believe

- Effective teachers believe they can unlock the learning potential of every student
- Effective teachers believe they have the responsibility to evaluate the impact of their practice and seek to improve
- Effective teachers believe in **inclusion and value student diversity**
- Effective teachers believe **student wellbeing** and **engagement** are essential to student achievement
- Effective teachers believe they share the responsibility for student success with schools, families and the broader community
- Effective teachers believe in **equity and reconciliation**
- Effective teachers believe in preparing students to become their own teachers and successful life-long learners

NUMERACY VISION

At our school, we deliver an engaging and inclusive Mathematics curriculum that connects to students' experiences through hands-on, play-based learning. We nurture curiosity, creativity, and confidence through differentiated approaches that respond to individual strengths and foster deep understanding, fluency, reasoning, and problem-solving skills. Our practice is underpinned by collaboration and reflection as we work alongside educators, learners, and families to support every student's progress.

How we ensure all students are achieving year on year progress in Mathematics:

- Implement whole school mathematical approaches across every year level and in every classroom with fidelity and continuity.
- Actively and consistently analyse assessment data to ensure that planning, processes and decisions are informed by students learning needs through identified trends.
- Regularly review maths targets by setting new, relevant year level targets and analysing student achievement against these objectives each year. This data then informs new processes and decision making within operational planning.
- Collaboration is seen as a critical consideration. Time and funding is assigned through Maths Operational Planning, whole school timetabling and budget ing to embed whole school approaches through professional collaboration that strengthens teaching, learning and leadership.
- Operational planning evaluates and plans for staff development, resource requirements and distributed leadership of Mathematics approaches across the school.
- Learners are supported to make the best start with access to high quality, evidence based mathematical learning opportunities in the early years.
- Plan for and provide whole school intervention in misconceptions using evidence-based strategies to ensure all students have the opportunity for success in mathematics.
- Create learning opportunities that encompass all four mathematical proficiencies - Understanding, Fluency, Problem Solving and Reasoning.
- Build students' self efficacy by building a growth mindset in mathematical thinking that promotes risk taking and resilience.
- Implement targeted instruction through diagnostic tasks that identify students at high risk of non-achievement.
- Provide opportunities to extend students who demonstrate mastery of concepts with targeted problem-solving tasks and investigations.

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Actionised Mathematics Operational Plan

	Major Strategies	Specific Actions	Persons Responsible	Resources	Progress Measurement	Evaluation
	School priorities and improvement areas	What will we do?	Who?	What do we need to be able to achieve this?	How will we know we have achieved this?	Did we achieve this?
	SFAS: Whole-school approaches & professional collaboration to strengthen teaching, learning & leadership. **SFAS:** Effective teaching strategies aligned with current research & best practice. **SFAS:** Classroom planning linked to the operational plan with regular reflection and direction from leaders. **SFAS:** A culture of excellence in all learning environments providing varied, challenging and stimulating learning experiences and opportunities that enable all learners to explore and build on their individual abilities, interests and experiences. **EY:** Strengthening foundational strengths in Early Childhood education. **EY:** Age-appropriate approaches and supports for learning and development help children grow and develop. **SFAS:** Analysis of data (including NAPLAN). **SFAS:** Teachers use student data to inform planning.	Western Australian Curriculum, Early Years Learning Framework and Kindergarten Guidelines are used to guide planning in all classes.	Teacher and Phase Re *to build staff's capacity*	Review Operational components (Scope & Sequence Doc.) with whole staff	Teacher planning Survey	
		Daily review is used in all classes	PILOT provide coaching Committee Phase Representatives.	T1: PL staff in Operational Plan T1: Wk 6 Meeting Focus T2: PL Staff	Survey	
		The Origo Program and Scopes & Sequence used across the school.	Committee Phase Representatives	Coaching & Mentoring Survey, 1:1 sessions	Survey	
		Paul Swan and Numero game formats are used consistently, supporting fluency.	Maths PILOT	Resources room – Include resource gallery walk (T2) Numero Club (commence T1) Snr Phase Representative		
		Effective Numeracy Strategies are used consistently across the school.	Committee Phase Representatives	T2: Wk 6 Meeting Focus – Numeracy Strategies T3: PL Staff, visuals ($$)	Survey (before & after)	
		Consistent application of Brightpath Mathematics in all year 2-6 classes.	Middle Phase Representative All classroom teachers Deputy/MCP	T3: Wk 6 Meeting – Brightpath Ass. Moderation T3: Brightpath – how to use the data to inform planning	Data analysis meeting minutes	

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	School priorities and improvement areas	What will we do?	Who?	What do we need to be able to achieve this?	How will we know we have achieved this?	Did we achieve this?
	SFAS: The School Assessment Schedule includes clear expectations, outlining reporting and planning requirements. **TQ Recommendation:** Continue to build staff capacity to interpret system and school-level data, enabling the development of targeted teaching plans that drive improved student outcomes.	On-Entry (P-2) and NAPLAN data is analysed each year using lines of inquiry to identify areas of strength/improvement, track trends and monitor progress.	Administration - DP All staff	SAIS T3: Whole-school data analysis (on-entry & NAPLAN)	Data analysis meeting minutes	
		Elastik to track student data and progress. *Brightpath Maths, NAPLAN and On-Entry data*	Teachers – Collab PILOT - Coaching Principal Deputy	Coach to offer support in Collab Meeting to analyse Elastik Data. Research Elastik PL and Book	Data analysis meeting minutes Elastik data	
	SFAS: Students set goals and work towards achieving them - explicitly taught and implemented. **SFAS:** Educational opportunities provided to match the aspirations of families and communities.	Fluency – 2026 Key Focus Each class utilises a Fluency Wall (visible learning) to actively involve students when reflecting on their mathematical fluency progress.	Teacher/s All team members School Survey Data All staff	T1: Wk 6 Table Fluency as a Key Focus for 2026. Build staffs' understanding of fluency and visible learning strategies such as 'Fluency Wall'. Focus: Improvement Mathematical Fluency across the school.	Survey (before & after PL)	
		Assessments will be completed as per the SKPS Assessment Schedule to monitor Fluency and Problem-Solving achievement and progress as well as inform targeted teaching and learning.	Teachers – Collab PILOT - Coaching Principal Deputy	T3: SAIS T3: Whole-school data analysis (on-entry & NAPLAN)	Collection of school data	

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	School priorities and improvement areas	What will we do?	Who?	What do we need to be able to achieve this?	How will we know we have achieved this?	Did we achieve this?
	SFAS: Ensure all students are achieving year on year progress through evidence-based approaches. **SFAS:** Teachers use student data to inform planning. **SAP Recommendations:** Moderation opportunities that enhance consistent teacher judgements	SKPS will engage in the Regional Numero Challenge Goldfields Heat annually. A Numero club will be investigated.	Numero Coach to lead planning, practice and prep sessions – Senior Phase Representative	Senior Teacher	Newsletter Certificates	
		Whole-school system-based data, including NAPLAN and On-Entry, analysed to monitor progress and drive improvement in Mathematics.	Data Analysis to be led by PILOT & DP All staff to engage	On-entry and NAPLAN data SAIS T3: Whole-school data analysis (on-entry & NAPLAN)	Completed data inquiry sheets	
		Brightpath Mathematics will be utilised in all Year 2-6 classes as per the SKPS Assessment Schedule to inform planning.	Committee Phase Representatives	T3: Wk 6 Meeting – Brightpath Ass. Moderation T3: Brightpath – how to use the data to inform planning	Brightpath Maths Data Session/s Cover in Collabs	
		Collaborative DOTT Explore network/external opportunities.	Admin to schedule Committee Phase Representatives to research.	T1: Team to discuss possible Maths topics for exploration in collab and develop a supporting schedule	PL spreadsheet PL/Moderation Research fed back to team in T2 Collab Support Schedule (not a req)	

Actionised Mathematics Operational Plan

	Major Strategies	Specific Actions	Persons Responsible	Resources	Progress Measurement	Evaluation
	School priorities and improvement areas	What will we do?	Who?	What do we need to be able to achieve this?	How will we know we have achieved this?	Did we achieve this?
	LR Recommendation: Strategically develop aspirant leaders in order to maintain a suitable distribution of quality curriculum. **UR Recommendation:** Evaluate financial and human resource allocation to ensure that maximum impact on student achievement is attained. **RP Recommendation:** Investigate further opportunities for staff to collaborate in purposeful structures that improve student outcomes. **SFAS:** Whole-School approaches and professional collaboration to strengthen teaching, learning and leadership.	LCP, MCP and HWBP will collaborate in developing the Operational Plan and its appendices to lead effective, whole school practice.	LCP MCP HWBP Deputies	Ongoing T1-T4	Completed Operational plan	
		Professional learning surrounding leadership and change management, such as the Observation and Feedback PL or Leadership Coaching PL, will be investigated for the LCP, MCP, HWBP.	Principal	T1: To review and present Leadership Institute PL to PILOTS	PL Survey spreadsheet	
		LCP, MCP and HWBP will investigate Professional Learning in their areas and report suggestions to the principal and portfolio teams for discussion.	LCP MCP HWBP MCS	T1 (ongoing): Present PL Opportunities to team, determine any outsourced PL	Completed Budget Proposals	
		Each term, the LCP, MCP and HWB will meet with the teachers, either individually or in phase teams, to reflect on the implementation of their areas and offer support as needed.	LCP MCP HWB	Ongoing: across 2026 Coaching Planning Support Resource Sharing Collaboration	Support Survey (T1, review Survey in T4). T4 Data Feeds Op Plan Review	
	SFAS: regular reflection to maintain clarity and direction. **EY:** WA Curriculum, EYLF and NQS inform school practice.	Whole school data analysis, including academic and non-academic data, will be analysed semesterly at staff meetings.	Data Analysis to be led by PILOT & DP All staff to engage	On-entry and NAPLAN data SAIS T3: Whole-school data analysis (on-entry & NAPLAN)	Completed data inquiry sheets	
		Performance Management meetings revised to improve the Performance Development process for staff.	Admin Team	Inclusion of new 2026 Schedule	Completed PM across Terms 1-4	
		Staff reflection data will be analysed in collaboration with the LCP, MCP and HWBP to identify areas to further support staff.	PILOT Numeracy Team Admin Team	T4: Analysed to drive revision for 2027 Op Plan, including actions in BP	Completion of 2027 Maths Op, Present to Admin Team for Budget Review	

BRIGHTPATH GUIDLINES

OVERVIEW

Brighpath is a formative assessment tool that makes progress visible, with clear next step for learning. It provides reliable and meaningful writing and numeracy formative assessments that value teacher judgments and are proven to improve the teaching and learning cycle; **teach>plan> assess.**

CLASSROOM ADMINISTRATION GUIDELINES: Knowledge Base

Go to Assessing with Brightpath, then scroll to Brightpath Mathematics for further information

TIME ALLOCATION PER ASSESSMENT

Scale	Year levels	Time allocation
Number and Algebra	Years 2-9	45-50 minutes
Measurement and Geometry	Years 2-9	45-50 minutes
Statistics and Probability	Years 4-9	30 minutes
General Mathematics	Years 2-9	40 minutes

Collect

Create the assessment to administer. Read the classroom administration guidelines to support you in delivering quality, fair assessment (see QR code). It is important to follow the guidelines to ensure consistency across our school.

Assess

Brightpath Number and Algebra, and General are to be completed each term. Using the data collected to inform teaching and learning is vital in ensuring students are given the tools to be successful. Brightpath Maths test are automatically marked, and results are available immediately after the test has been closed. They are assessed on three different scales; Brightpath, NAPLAN and A-E grade. These can be used to inform reporting.

Use

After student tests have been assessed, 'Teaching Points' will be allocated to students based on their score. Use this score to complete the following where needed:

- Group students by abilities.
- Look for trends or patterns within your student cohort.
- Use the 'Teaching Points' to inform future teaching and learning.
- Provide feedback for students and assist in personal goal setting.
- Use the information provided to support your class in using a Bump It Up wall.
- Use results for whole school moderation meetings.

HIGH IMPACT TEACHING STRATEGIES

The HITS provide a clear link between the 'Evidence Based High Impact Teaching Strategies' dimension of FISO and classroom practice. Teachers can plan and adjust their practice in response to one or more of the HITS and monitor the impact on student engagement and learning outcomes.

High impact teaching strategies with overviews and effect sizes

1. Setting Goals

Lessons have clear learning intentions with goals that clarify what success looks like.

2. Structuring Lessons

A lesson structure maps teaching and learning that occurs in class.

3. Explicit Teaching

When teachers adopt explicit teaching practices, they clearly show students what to do and how to do it.

4. Worked Examples

A worked example demonstrates the steps required to complete a task or solve a problem.

5. Collaborative Learning

Collaborative learning occurs when students work in small groups and everyone participates in a learning task.

6. Multiple Exposures

Multiple exposures provide students with multiple opportunities to encounter, engage with, and elaborate on new knowledge and skills.

7. Questioning

Questioning is a powerful tool, and effective teachers regularly use it for a range of purposes. It engages students, stimulates interest and curiosity in the learning, and makes links to students' lives.

8. Feedback

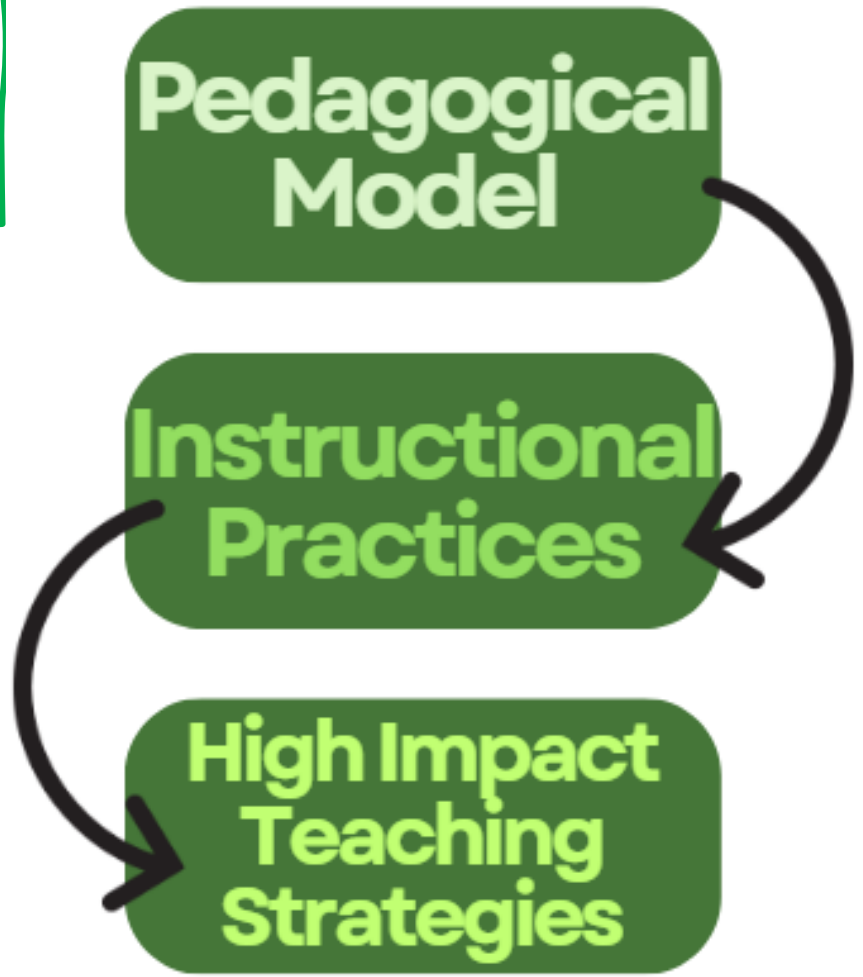
Feedback informs a student and/or teacher about the student's performance relative to learning goals.

9. Metacognitive Strategies

Metacognitive strategies teach students to think about their own thinking.

10. Differentiated teaching

Differentiated teaching are methods teachers use to extend the knowledge and skills of every student in every class, regardless of their starting point.



DAILY REVIEW

Daily Review: Purpose and Practice

The Daily Review strengthens students' understanding and fluency in key literacy and numeracy concepts. It ensures they have the foundational skills needed for the day's lesson, while boosting confidence through structured revision of previously taught content, no new content to be introduced.

Grounded in **Cognitive Load Theory**, the Daily Review helps students manage the limits of short-term working memory. To avoid overload, material should be sequenced and limited, allowing time for processing.

When using PowerPoint:

Avoid reading aloud from slides while displaying the same text (Sweller's recommendation).

Let students control the pace to support cognitive processing.

Rosenshine's Daily Review principles:

Duration: 5–8 minutes

Focus: Automaticity with skills, facts, and vocabulary

Purpose: Reinforce prior learning and support new content

SPACED PRACTICE

The practice of scheduling review topics at regular intervals. By providing children with regular opportunities to review prior learning, they are far more likely to transfer skills and knowledge into long term memory

INTERLEAVED PRACTICE

The practice of studying a range of topics in a single session. Short bursts of multiple concepts or interwoven topics allow students to encounter a variety of topics regularly as opposed to in one larger review.

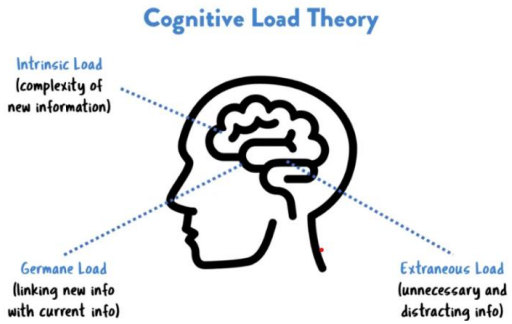
RETRIEVAL PRACTICE

The practice of bringing information from long-term memory into working memory. Retrieving knowledge from long-term knowledge, allowing students to remember topics previously and reduces the likelihood of having to reteach.

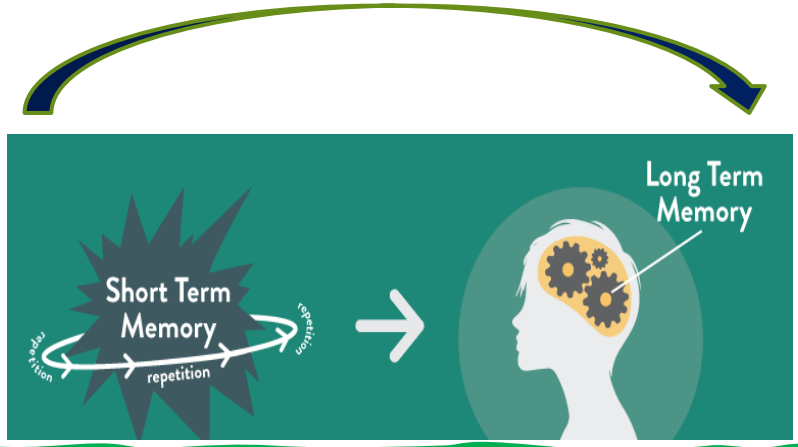
The Daily Review is divided into three sections:

- fluency building
- a planned cycle of revision
- prerequisite skills for the day's lesson

Teachers of younger students often use the strategy of seating students on the classroom floor with mini-whiteboards for their Daily Review so that they can frequently check for understanding. Teachers of older grades usually check their students' understanding of previously taught concepts and skills, also using mini whiteboards, while their students are seated at desks.



Link: Principles of Instruction - Daily Review



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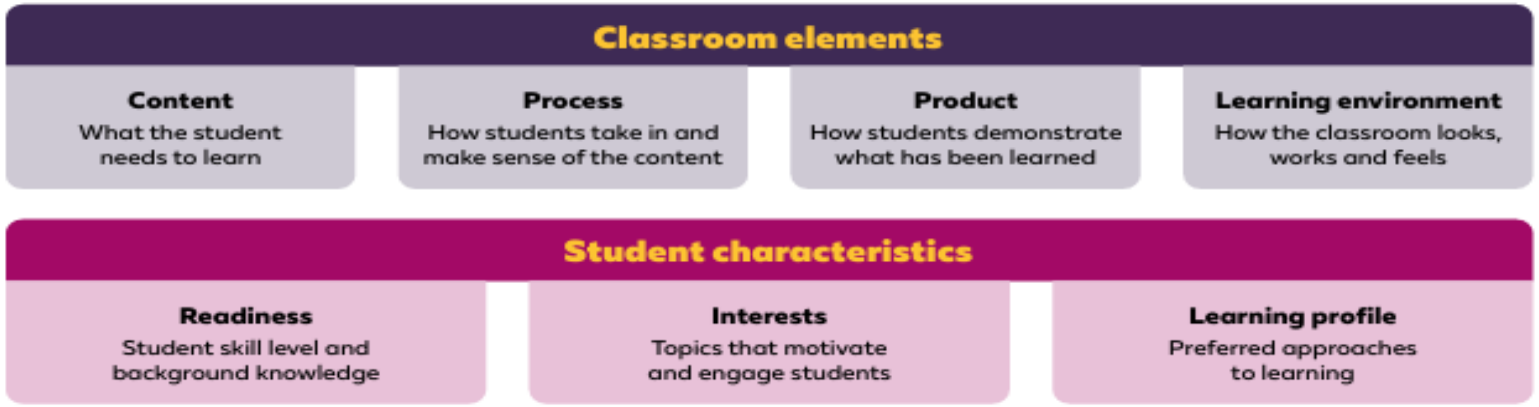
DIFFERENTIATION MODES

RATIONALE

At South Kalgoorlie Primary School, we differentiate our teaching in multiple ways to increase student engagement and opportunities for success. We use student progress and achievement data as well as student characteristics to identify and implement appropriate modes of differentiation for each student.



CONTENT DIFFERENTIATION

Content differentiation occurs by adapting the level of difficulty of a task. This should be done as little as possible, whilst still ensuring students can successfully participate. Where necessary, teachers can reduce or increase the complexity of a task, not changing the content completely.

To extend students, we can:

- Explore learning area content in more depth of breadth (SCSA Elaborations)
- Explore specific aspects of the general capabilities, such as higher order cognitive skills (SCSA critical and creative thinking capability).

PROCESS DIFFERENTIATION

Process differentiation is when we adapt the learning process. In this way, we construct lessons that support individual needs by giving students the option to achieve learning outcomes in a way that increases their ability to engage.

Some process adjustments include:

- Varying how the task is introduced (Scaffolds, CRA Model, etc.)
- Providing options at different levels of difficulty (early finishers, extension or support tasks)
- Varying the amount of support provided.
- Altering the time allocated .
- Providing opportunities to work independently and/or collaboratively.

PRODUCT DIFFERENTIATION

Product differentiation is the act of adapting how we ask students to present their learning. We enable students to express their understanding and demonstrate skills in different way or forms, such as:

- Written (reports, narratives, recounts, etc.)
- Spoken (oral presentations, podcasts etc.)
- Physical (dramatic/acting performances or physical demonstrations)
- Visual (drawings, labels, artworks)
- Technological (photographs, demonstrations, use of apps/programs)
- Multimodal (brochures, videos, animations, etc.)

LEARNING ENVIRONMENT DIFFERENTIATION

The way the classroom looks, works, and feels impacts students learning. Adapting the learning environment can include:

- Optimising collaboration and respect conditions
- Providing access to varied materials/resources/spaces for learning
- Digital differentiation: Providing students with educational and assistive technologies, such as online recorded materials to access throughout lessons
- Flexible learning areas
- Effective groupings organised by student needs (flexible and teaching collaborative skills to enhance collaboration.

NUMERACY TEACHING FRAMEWORKS

INSTRUCTIONAL ROUTINES - DAILY REVIEW All numeracy blocks at SKPS begin with Daily Review.

INSTRUCTIONAL ROUTINES - CONCRETE, REPRESENTATIONAL, ABSTRACT
All teachers use concrete manipulatives in numeracy blocks. The purpose of teaching through a concrete-to-representational-to-abstract sequence is to ensure students have a thorough understanding of the maths concepts/skills they are learning. When students are allowed to first develop a concrete understanding, they are much more likely to understand concepts at the abstract level.

Concrete

Teacher modelling of concepts with concrete materials (unifix cubes, base ten blocks etc) • Students are given many opportunities to practise using concrete materials

Representational

Involves drawing pictures that represent concrete objects previously used

Abstract

Using only numbers and mathematical symbols • As the teacher moves through this sequence the abstract numbers and symbols should be used in conjunction with the concrete materials and the representational drawings.

Polya's Problem-Solving Method

Polya's problem solving method is a systematic four step process for solving problems. Students are able to break the problem down into chunks to increase the likelihood of success.

1. Understand the question	• What are you asked to find or show? • Can you restate the question in your own words? • What part of the information is important/unimportant? • Can you think of a picture or diagram that might help you understand the question?	• Is there enough information available to solve the problem? • Do you need to ask a question to get the answer? • Why might this problem be difficult/easy?
2. Make the plan	• Draw pictures or diagrams. • Eliminate possibilities/impossibilities. • Be systematic.	• Solve a simpler version of the problem and consider special cases. • Guess and test. • Look for pattern/s. • Make a list.
3. Carry out the plan	• Try to use the strategy chosen in step 2.	• If this doesn't work, try another one.
4. Look back and review	• Did you answer the question? • Can you check your answer by working in reverse? (i.e., addition checked by subtraction, multiplication checked by division etc.) • What would change if you changed the question a bit?	• Is there another way of doing the problem which my be simpler? • Can the question or method be generalised to b e useful for future problems?

PEDAGOGICAL FRAMEWORK

Essential Lesson Components

Lesson Step	Purpose	At SKPS
ENGAGE PRIOR LEARNING	Activate prior knowledge.	• Daily review – RETRIEVAL, SPACED AND INTERLEAVED PRACTICE. • Short, sharp and focussed recall of prior learning.
INSTRUCT	Build understanding of new content.	• Introduction of lesson objective. • Use a variety of instructional strategies, such as modelling, explicit instruction, and guided practice, to effectively convey the information to students. • Use of the gradual release model (I do/We do/You do). • Use TAPPLE model to check for understanding.
PRACTICE AND APPLY	Practise skill. Provide extra support or intervention. Opportunities for differentiation. Assess student understanding.	• Include the HIT strategies. • Use the Full Participation Principles to uphold engagement. • Allow students time to practise the new skill and apply their understanding.
REFLECT AND ASSESS	Check for understanding. Provide feedback. Inform future teaching.	• Us the TAPPLE model to check for understanding and monitor progress. • Provide feedback.

Rationale

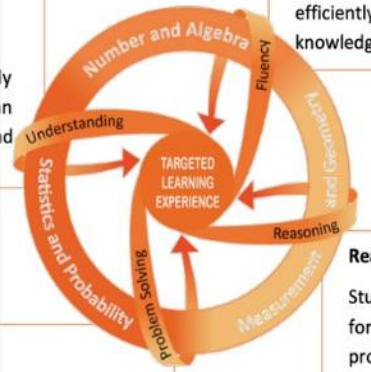
At South Kalgoorlie Primary School, our Pedagogical Framework is essential for guiding effective teaching and learning practices. It ensures alignment with literacy and numeracy goals, consistency in instruction, and responsiveness to diverse learner needs. By integrating evidence-based practices and leveraging appropriate technology, our teachers create engaging learning environments that foster a love for learning.

Our Participation Principles

To uphold engagement and accountability, it is essential to implement Full Participation strategies consistently in all daily reviews and lessons.

Understanding

Students build a robust knowledge of adaptable and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the 'why' and the 'how' of mathematics.



Fluency

Students develop skills in choosing appropriate procedures; carrying out procedures flexibly, accurately, efficiently and appropriately; and recalling factual knowledge and concepts readily.

Problem Solving

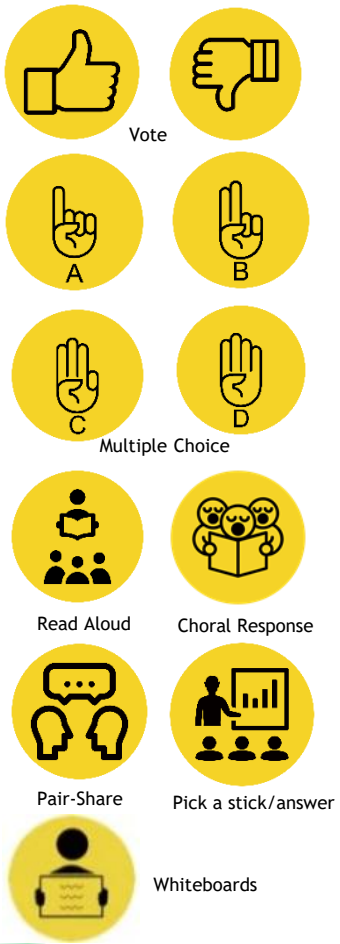
Students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively.

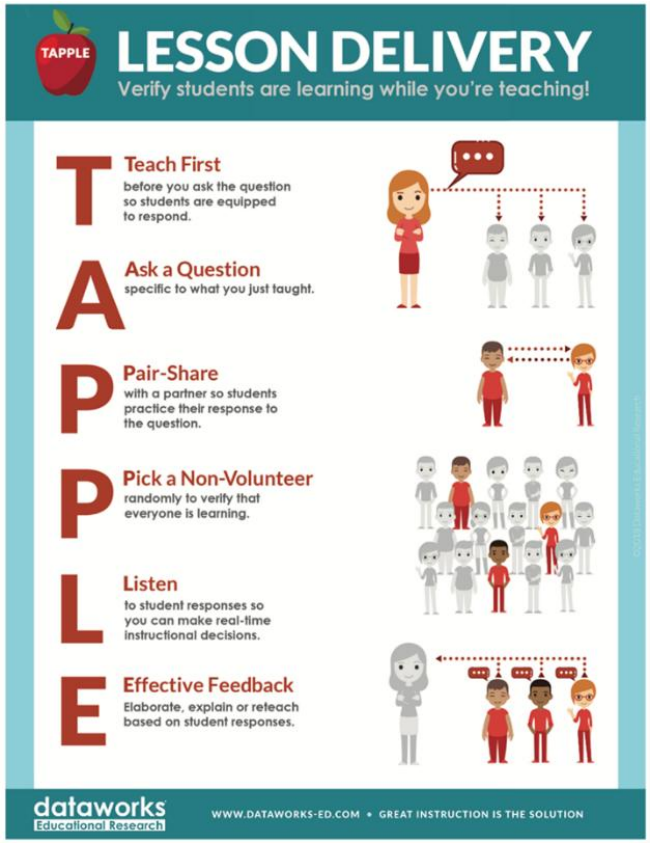
Reasoning

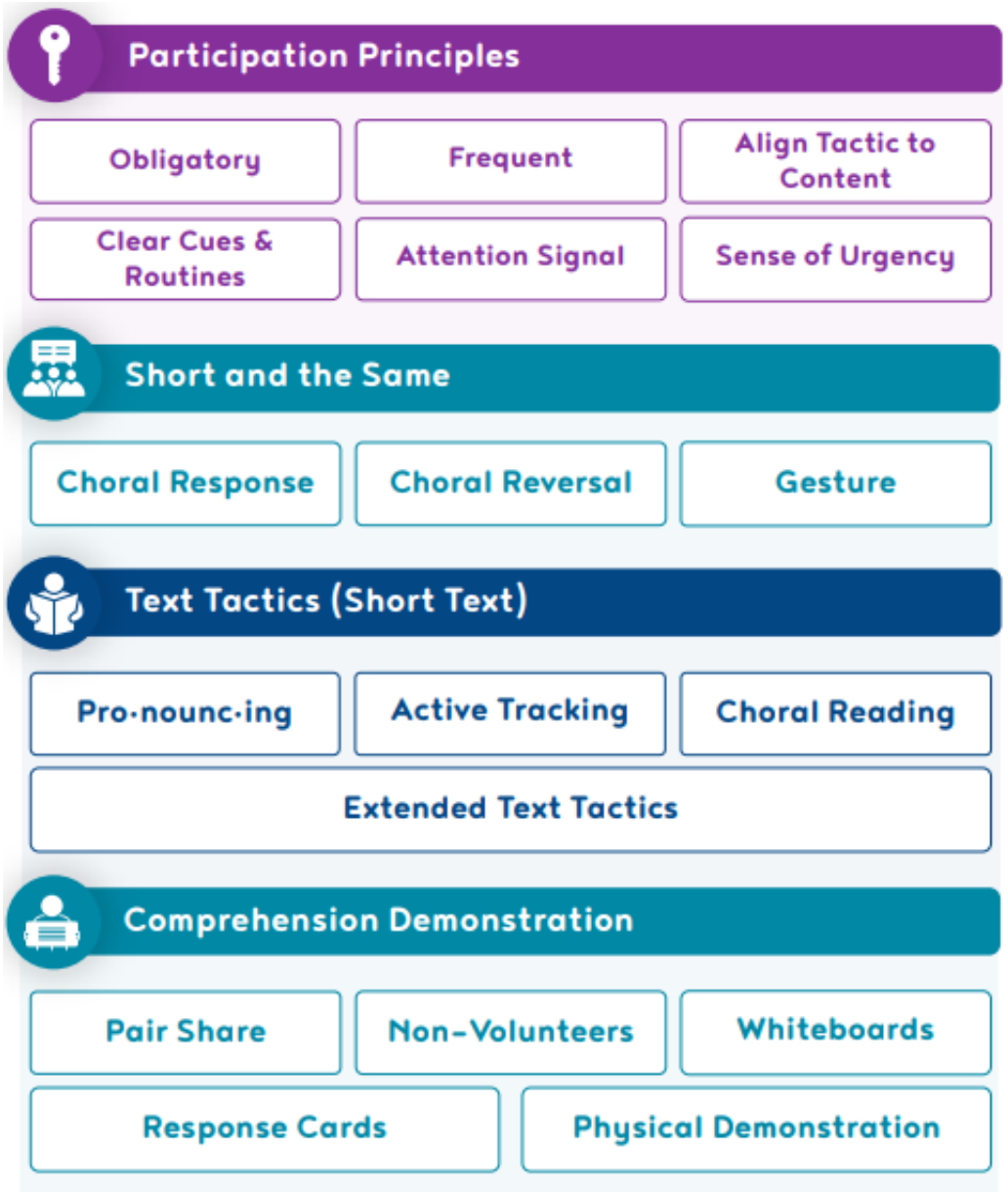
Students develop an increasingly sophisticated capacity for logical thought and actions, such as analysing, proving, evaluating, explaining, inferring, justifying and generalising.

FULL PARTICIPATION PRINCIPLES

To uphold engagement and accountability, it is essential to implement Full Participation strategies in all daily reviews and lessons.



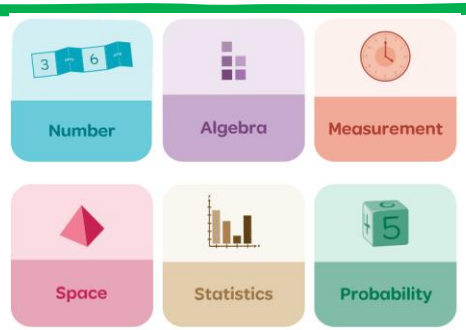




ORIGO

STEPPING STONES

CORE MATHEMATICS



ORIGO Stepping Stones has been written and developed by a team of experts who utilsied all available research to provide teachers with access to a world-class primary maths program that honestly addresses both the content and the intent of the *Australian Curriculum*.

Lessons

Each year level of the ORIGO Stepping Stones program is comprised of 12 modules. Each module addresses two or three big ideas from the Australian Curriculum.

Differentiation

Differentiation activities are provided for each lesson. In most lessons, these are provided at three levels: Extra Help, Extra Practice and Extra Challenge.

Ongoing Practice

Every lesson in Stepping Stones has appropriate practice. They revisit content from earlier modules, previous modules and previous lessons within the module. Modules from Years 1 to 6 have projectable activities that are designed to foster fluency of basic facts.

Problem-Solving Activities

Each module in ORIGO Stepping Stones Years 1 to 6 has at least two problem-solving activities. Teachers can draw from these activities and use them when they deem appropriate.

Investigations

Each module from Years 1 to 6 has at least two micro investigations. These give students opportunities to apply the mathematics they have learned. These are 'open' in nature and require the students to collect, represent and analyse data.

Assessment

ORIGO Stepping Stones offer formative and summative methods to assess knowledge and skills for each module. In addition, there are quarterly tests (every 3 modules) that can be used for summative purposes throughout the year.

Resources

The ORIGO Stepping Stones program provides resources for the teacher and the students. For Years F to 2 there are 12 ORIGO Big Books titles to introduce mathematical concepts, catering to young students' natural love for stories and learning. There is also the Number Case for each year level to provide visual models and resources that are needed to develop deep understanding of number and operations.

For further information about ORIGO Stepping Stones, use the QR Code.

Extra Resources

honey pot
free-bees for your classroom

Provides over 140 blackline masters templates covering a full range of elementary math topics.

GO ACE MATHS

Provides black line masters for Years F to 6.

ORIGO 1
ONE MINUTE MATHEMATICS

A range of one-minute videos to assist the teacher take a math concept and break it into easy-to-understand pieces.

2026 Assessment Schedule
MATHEMATICS

Data Collection	Year Level	Who	When	Collection & Analysis Responsibility	How is data used	Save location
TERM 1						
Brightpath General Maths	2-6	Class Teacher	Week 4	Class Teacher	To inform classroom planning	RTP
NAPLAN	3 & 5	Class Teacher	Week 6	Whole School	To inform classroom planning	Share Drive download & Elastik
Brightpath N&A	2-6	Class Teacher	Week 6-8	Class Teacher	To inform classroom planning	RTP
Brightpath N&A	2-6	Class Teacher	Week 8	Class Teacher	To inform classroom planning	RTP
Origo Quarterly 1	PP -6	Class Teacher	End of module 3	Class Teacher	To inform classroom planning	Spreadsheet uploaded to Elastik
TERM 2						
Brightpath N&A	2-6	Class Teacher	Week 5	Class Teacher	To inform classroom planning & RTP	RTP
Brightpath M&G	2-6	Class Teacher	Week 5	Class Teacher	To inform classroom planning & RTP	RTP
Origo Quarterly 2	PP -6	Class Teacher	End of module 6	Class Teacher	To inform classroom planning & RTP	Spreadsheet uploaded to Elastik
TERM 3						
Brightpath N&A	2-6	Class Teacher	Week 5	Class Teacher	To inform classroom planning	RTP
Origo Quarterly 3	PP -6	Class Teacher	End of module 9	Class Teacher	To inform classroom planning	Spreadsheet uploaded to Elastik
TERM 4						
Brightpath General Maths	2-4	Class Teacher	Week 4	Class Teacher	To inform classroom planning & RTP	RTP
Brightpath N & A	2-6	Class Teacher	Week 5	Class Teacher	To inform classroom planning & RTP	RTP
Origo Quarterly 4	PP-5	Class Teacher	End of module 12	Class Teacher	To inform classroom planning & RTP	Spreadsheet uploaded to Elastik

South Kalgoorlie Primary School

Maths

Scope and Sequence

Kindergarten to Year 6

2026

NUMERACY BLOCK FORMAT

Time	Phase	Focus
5-10 minutes	Daily Review	Review of known concepts (Origo “Fluency” tasks, mental warm-ups, ‘Number Talks’ aligned to recent modules
5 minutes	Lesson Launch	Make clear the learning intention and success criteria (WALT/WILF) and link to prior knowledge, introduce specific vocabulary
15 minutes	Concrete Phase	Use manipulatives from classroom Toolbox or Maths Resource Room
15 minutes	Representational Phase	Utilisation of diagrams, arrays or number sentences. Utilise visual slides from Origo and/or worksheets as needed
15 minutes	Abstract Phase & Guided practice	Moving into symbolic notation, equations and problem solving with teacher scaffolding
10 minutes	Independent/ Differentiated practice	Students complete on-level tasks. Utilise ‘More practice’ or ‘Challenge’ tasks for support or extension
5 minutes	Plenary and Reflection	Review of key learning, revisit success criteria and check for understanding / misconceptions to guide next lesson

Scope and Sequence: Kindergarten

Achievement Standard:

- Name the last number in the count that represents how many in the set (cardinal value).
- Count objects by using 1:1 correspondence.
- Know that numbers always happen in a conventional order (stable order of counting).
- Begin to understand that the starting point and order in which you count does not change the amount of items (order irrelevance).
- Begin to understand that the arrangement, size, or difference between objects does not affect the amount (abstraction).
- Recite number names in order to 10, consistently.
- Recognise numerals to 5 and then to 10 and begin to order them.
- Recall which number is missing in a number line 1-10.
- Partition small numbers (part, part, whole).
- Subitise small quantities of objects or standard patterns on a dice.
- Compare collections of objects and describe whether there is more, less, the same or not.
- Copy and create simple a,b,a,b patterns.

Proficiency Strands:

Understanding • Make connections between related concepts • Apply the familiar to develop new ideas
Fluency Develop skills in choosing appropriate procedures • Recall factual knowledge and concepts
Problem Solving • Use mathematics to represent unfamiliar or meaningful situations
Reasoning • Explain thinking

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	• recite number names in order, initially to 5, then to 10 consistently • recall what number is missing in a number line 1 to 10 • recognise numerals initially to 5 and then to 10 and begin to order them • name the last number in the count that represents how many in the set (cardinal value) • count objects by using one to one correspondence up to 10 • know that numbers always happen in a conventional order (stable order) • begin to understand that the starting point and order in which you count them does not affect how many (order irrelevance) • begin to understand that the arrangement, size or differences of the objects doesn't affect how many (abstraction) • compare collections of objects and describe whether there is more, less, the same or not the same • subitise small quantities of objects or standard patterns on a die • partition small numbers (part, part, whole) to 6 • Copy and create simple two part patterns			
Measurement and Geometry	• describe the sequence of familiar events and routines • use the everyday language of time such as morning, afternoon, daytime • use language words to describe duration and relative duration • use positional language • use the appropriate language of measurement to describe, compare and order • recognise names, sort and match basic two-dimensional shapes • sort, classify and match objects according to attributes, for example colours, sizes and shapes • order objects according to one attribute			
Statistics and Probability	• answer simple questions to collect information, such as using yes/no • group items in response to questions			

Scope and Sequence: Foundation (Pre-Primary)

Achievement Standard:

By the end of Foundation Year, students make connections between number names, numerals and position in the sequence of numbers from zero to at least 20. They use subitising and counting strategies to quantify collections. Students compare the size of collections to at least 20. They partition and combine collections up to 10 in different ways, representing these with numbers. Students represent practical situations that involve quantifying, equal sharing, adding to and taking away from collections to at least 10. They copy and continue repeating patterns.
Students identify the attributes of mass, capacity, length and duration, and use direct comparison strategies to compare objects and events. They sequence and connect familiar events to the time of day. Students name, create and sort familiar shapes and give their reasoning. They describe the position and the location of themselves and objects in relation to other objects and people within a familiar space.
Students collect, sort and compare data in response to questions in familiar contexts.

Proficiency Strands:

Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly and identifying and describing the relationship between addition and subtraction and between multiplication and division
Fluency includes readily counting numbers in sequences, using informal units iteratively to compare measurements, using the language of chance to describe outcomes of familiar chance events and describing and comparing time durations
Problem-solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations, and matching transformations with their original shape
Reasoning includes using known facts to derive strategies for unfamiliar calculations, comparing and contrasting related models of operations and creating and interpreting simple representations of data

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9MFN01** name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals. **AC9MFA01** recognise, copy and continue repeating patterns represented in different ways **AC9MFN02** recognise and name the number of objects within a collection up to 5 using subitising **AC9MFN03** quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning	**AC9MFN01** name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals **AC9MFN02** recognise and name the number of objects within a collection up to 5 using subitising **AC9MFN05** represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies	**AC9MFN01** name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals **AC9MFN02** recognise and name the number of objects within a collection up to 5 using subitising **AC9MFN04** partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts **AC9MFN05** represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies	**AC9MFN02** recognise and name the number of objects within a collection up to 5 using subitising
Measurement and Geometry	**AC9MFSP02** describe the position and location of themselves and objects in relation to other people and objects within a familiar space	**AC9MFM01** identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning	**AC9MFM01** identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning **AC9MFM02** sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions **AC9MFSP01** sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons	**AC9MFM02** sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions **AC9MFSP01** sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons
Statistics and Probability	**AC9MFST01** collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations		**AC9MFST01** collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations	

Scope and Sequence: Year 1

Achievement Standard:

By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120. They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones. Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120. They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.
They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning. Students measure the length of shapes and objects using uniform informal units. They make, compare and classify shapes and objects using obvious features. Students give and follow directions to move people and objects within a space.
They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

Proficiency Strands:

Understanding includes connecting number names, numerals and quantities, and partitioning numbers in various ways (e.g., partitioning two-digit numbers into tens and ones).
Fluency includes readily counting number in sequences forwards and backwards, locating numbers on a number line, and naming the days of the week.
Problem-solving includes using materials to model authentic problems (e.g., additive situations), giving and receiving directions to unfamiliar places, and discussing the reasonableness of an answer.
Reasoning includes explaining direct and indirect comparisons of length using uniform informal units, justifying representations of data, and explaining patterns that have been created.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M1N01**: Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts. **AC9M1N03**: Quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting. **AC9M1N04**: Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies. **AC9M1N02**: Partition one- and two-digit numbers in different ways, including partitioning two-digit numbers into tens and ones. **AC9M1A01**: Recognise, continue and create pattern sequences with numbers, symbols, shapes and objects, formed by skip counting, initially by twos, fives and tens.	**AC9M1N03**: Quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting. **AC9M1N04**: Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies.	**AC9M1N03**: Quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting. **AC9M1N01**: Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts. **AC9M1N02**: Partition one- and two-digit numbers in different ways, including partitioning two-digit numbers into tens and ones. **AC9M1N04**: Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies.	**AC9M1A01**: Recognise, continue and create pattern sequences, with numbers, symbols, shapes and objects, formed by skip counting, initially by twos, fives and tens. **AC9M1A02:** Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit. **AC9M1N02**: Partition one- and two-digit numbers in different ways, including partitioning two-digit numbers into tens and ones. **AC9M1N04**: Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies.
Measurement and Geometry	**AC9M1M06:** Recognise, sort and order Australian coins and notes according to their value and establish equivalent amounts in collections of coins. **AC9M1M04:** Tell time to the half-hour. **AC9M1M03**: Describe the duration and sequence of events using years, months, weeks, days and hours. **AC9M1SP02:** Give and follow directions to move people and objects within a familiar space, using the language of location and movement.	**AC9M1M02:** Measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end. **AC9M1M04:** Tell time to the half-hour. **AC9M1M03**: Describe the duration and sequence of events using years, months, weeks, days and hours. **AC9M1SP01**: Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them.	**AC9M1SP01**: Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them.	**AC9M1M04:** Tell time to the half-hour. **AC9M1M02:** Measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end.
Statistics and Probability				**AC9M1P01**: Identify outcomes of familiar events, and describe them using everyday language, such as 'will happen', 'won't happen' or 'might happen'. **AC9M1ST01**: Acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols. **AC9M1ST02:** Represent data with objects and drawings where one object or drawing represents one data value; compare and discuss the data using frequencies.

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Scope and Sequence: Year 2

Achievement Standard:

By the end of Year 2, students order and represent numbers to at least 1000, apply knowledge of place value to partition, rearrange and rename two- and three-digit numbers in terms of their parts, and regroup partitioned numbers to assist in calculations. They use mathematical modelling to solve practical additive and multiplicative problems, including money transactions, representing the situation and choosing calculation strategies. Students identify and represent part-whole relationships of halves, quarters and eighths in measurement contexts. They describe and continue patterns that increase and decrease additively by a constant amount and identify missing elements in the pattern. Students recall and demonstrate proficiency with addition and subtraction facts within 20 and multiplication facts for twos.
They use uniform informal units to measure and compare shapes and objects. Students determine the number of days between events using a calendar and read time on an analogue clock to the hour, half hour and quarter hour. They compare and classify shapes, describing features using formal spatial terms. Students locate and identify positions of features in two-dimensional representations and move position by following directions and pathways.
They use a range of methods to collect, record, represent and interpret categorical data in response to questions.

Proficiency Strands:

Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly and identifying and describing the relationship between addition and subtraction and between multiplication and division.
Fluency includes readily counting numbers in sequences, using informal units iteratively to compare measurements, using the language of chance to describe outcomes of familiar chance events and describing and comparing time durations
Problem-solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations, and matching transformations with their original shape.
Reasoning includes using known facts to derive strategies for unfamiliar calculations, comparing and contrasting related models of operations and creating and interpreting simple representations of data.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M2N01:** Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines. **AC9M2N02:** Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation. **AC9M2N04** : Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part-part-whole reasoning and a variety of calculation strategies.	**AC9M2N01:** Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines. **AC9M2N02:** Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation. **AC9M2N04** : Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part-part-whole reasoning and a variety of calculation strategies. **AC9M2A01:** Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern.	**AC9M2N04:** Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part-part-whole reasoning and a variety of calculation strategies. **AC9M2N05:** Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies. **AC9M2A03:** Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving. **AC9M2A01**: Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern.	**AC9M2N06:** Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation.
Measurement and Geometry		**AC9M2M01:** Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary. **AC9M2SP01:** Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved" and "straight".	**AC9M2M01:** Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary. **AC9M2M04:** Recognise and read the time represented on an analogue clock to the hour, half-hour and quarter-hour. **AC9M2SP02:** Locate positions in two-dimensional representations of a familiar space; move positions by following directions and pathways.	**AC9M2M01:** Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary. **AC9M2M02:** Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events. **AC9M2M03:** Identify the date and determine the number of days between events using calendars. **AC9M2M05:** Identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations. **AC9M2SP01**: Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved" and "straight".
Statistics and Probability	**AC9M2ST02:** Create and interpret tables and list displays of data collected from one or two categorical variables. **AC9M2ST01:** Acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols.		**AC9M2ST01:** Acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols.	**AC9M2P01:** Identify and describe the element of chance in familiar events; recognise and use the terms 'is certain to', 'is likely to', 'is unlikely to' and 'is impossible to' to describe and order their likelihood. **AC9M2ST01:** Acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols. **AC9M2ST02:** Create and interpret tables and list displays of data collected from one or two categorical variables.

Scope and Sequence: Year 3

Achievement Standard:

By the end of Year 3, students order and represent natural numbers beyond 10 000. They partition, rearrange and regroup two- and three-digit numbers in different ways to assist in calculations. Students extend and use single-digit addition and related subtraction facts and apply additive strategies to model and solve problems involving two- and three-digit numbers. They use mathematical modelling to solve practical problems involving single-digit multiplication and division, recalling multiplication facts for twos, threes, fours, fives and tens, and using a range of strategies. Students represent unit fractions and their multiples in different ways. They make estimates and determine the reasonableness of financial and other calculations. Students find unknown values in number sentences involving addition and subtraction. They create algorithms to investigate numbers and explore simple patterns.
Students use familiar metric units when estimating, comparing and measuring the attributes of objects and events. They identify angles as measures of turn and compare them to right angles. Students estimate and compare measures of duration using formal units of time. They represent money values in different ways. Students make, compare and classify objects using key features. They interpret and create two-dimensional representations of familiar environments.
Students conduct guided statistical investigations involving categorical and discrete numerical data and interpret their results in terms of the context. They record, represent and compare data they have collected. Students use practical activities, observation or experiment to identify and describe outcomes and the likelihood of everyday events explaining reasoning. They conduct repeated chance experiments and discuss variation in results.

Proficiency Strands:

Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly and identifying and describing the relationship between addition and subtraction and between multiplication and division.
Fluency includes readily counting numbers in sequences, using informal units iteratively to compare measurements, using the language of chance to describe outcomes of familiar chance events and describing and comparing time durations
Problem-solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations, and matching transformations with their original shape.
Reasoning includes using known facts to derive strategies for unfamiliar calculations, comparing and contrasting related models of operations and creating and interpreting simple representations of data.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M3N01** recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000. **AC9M3A02** extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M3A03** recall and demonstrate proficiency with multiplication facts for 3,4,5 and 10; extend and apply facts to develop the related division facts. **AC9M3N04** multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies.	**AC9M3N01** recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000. **AC9M3A01** recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences. **AC9M3A02** extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M3A03** recall and demonstrate proficiency with multiplication facts for 3,4,5 and 10; extend and apply facts to develop the related division facts. **AC9M3N06** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation. **AC9M3N02** recognise and represent unit fractions including 1/2, 1/3, 1/4, 1/5 and 1/10 and their multiples in different ways; combine fractions with the same denominator to complete the whole. **AC9M3N04** multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies.	**AC9M3N01** recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000. **AC9M3A03** recall and demonstrate proficiency with multiplication facts for 3,4,5 and 10; extend and apply facts to develop the related division facts. **AC9M3N06** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation. **AC9M3N07** follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns. **AC9M3N04** multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies. **AC9M3N05** estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations.	**AC9M3N01** recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000. **AC9M3A02** extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M3A03** recall and demonstrate proficiency with multiplication facts for 3,4,5 and 10; extend and apply facts to develop the related division facts. **AC9M3N06** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation. **AC9M3N02** recognise and represent unit fractions including 1/2, 1/3, 1/4, 1/5 and 1/10 and their multiples in different ways; combine fractions with the same denominator to complete the whole. **AC9M3N04** multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies.
Measurement and Geometry	**AC9M3M03** recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events.	**AC9M3M01** identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates. **AC9M3M02** measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings. **AC9M3SP01** make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses.	**AC9M3M05** identify angles as measures of turn and compare angles with right angles in everyday situations. **AC9M3M01** identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates. **AC9M3M02** measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings. **AC9M3M03** recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events.	**AC9M3M01** identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates. **AC9M3M02** measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings. **AC9M3M06** recognise the relationships between dollars and cents and represent money values in different ways. **AC9M3SP02** interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other.
Statistics and Probability	**AC9M3ST02** create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context. **AC9M3ST03** conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest.	**AC9M3ST02** create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context. **AC9M3ST03** conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest.	**AC9M3ST01** acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets.	**AC9M3P01** identify practical activities and everyday events involving chance; describe possible outcomes and events as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' explaining reasoning. **AC9M3P02** conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation. **AC9M3ST01** acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets. **AC9M3ST02** create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context.

Scope and Sequence: Year 4

Achievement Standard:

By the end of Year 4, students use their understanding of place value to represent tenths and hundredths in decimal form and to multiply natural numbers by multiples of 10. They use mathematical modelling to solve financial and other practical problems, formulating the problem using number sentences, solving the problem choosing efficient strategies and interpreting results in terms of the situation. Students use their proficiency with addition and multiplication facts to add and subtract, multiply and divide numbers efficiently. They choose rounding and estimation strategies to determine whether results of calculations are reasonable. Students use the properties of odd and even numbers. They recognise equivalent fractions and make connections between fraction and decimal notations. Students count and represent fractions on a number line. They find unknown values in numerical equations involving addition and subtraction. Students follow and create algorithms that generate sets of numbers and identify emerging patterns. They use scaled instruments and appropriate units to measure length, mass, capacity and temperature. Students measure and approximate perimeters and areas. They convert between units of time when solving problems involving duration. Students compare angles relative to a right angle using angle names. They represent and approximate shapes and objects in the environment. Students create and interpret grid references. They identify line and rotational symmetry in plane shapes and create symmetrical patterns. Students create many-to-one data displays, assess the suitability of displays for representing data and discuss the shape of distributions and variation in data. They use surveys and digital tools to generate categorical or discrete numerical data in statistical investigations and communicate their findings in context. Students order events or the outcomes of chance experiments in terms of likelihood and identify whether events are independent or dependent. They conduct repeated chance experiments and describe the variation in results.

Proficiency Strands:

Understanding includes making connections between representations of numbers, partitioning and combining numbers flexibly, extending place value to decimals, using appropriate language to communicate times and describing properties of symmetrical shapes.
Fluency includes recalling multiplication tables, communicating sequences of simple fractions, using instruments to measure accurately, creating patterns with shapes and their transformations and collecting and recording data.
Problem-solving includes formulating, modelling and recording authentic situations involving operations, comparing large numbers with each other, comparing time durations and using properties of numbers to continue patterns.
Reasoning includes using generalising from number properties and results of calculations, deriving strategies for unfamiliar multiplication and division tasks, comparing angles, communicating information using graphical displays and evaluating the appropriateness of different displays.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M4A02** recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M4N05** solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits. **AC9M4A01** find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations. **AC9M4N01**recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals.	**AC9M4N04** count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines. **AC9M4N03** find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation. **AC9M4A02** recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M4N05** solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits. **AC9M4A01** find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations.	**AC9M4N06** develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder. **AC9M4A02** recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M4A01** find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations. **AC9M4N02** explain and use the properties of odd and even numbers. **AC9M4N08** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation.	**AC9M4N07** choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions. **AC9M4N03** find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation. **AC9M4N03** find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation. **AC9M4N06** develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder. **AC9M4A02** recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator. **AC9M4N08** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation.
Measurement and Geometry	**AC9M4M03** solve problems involving the duration of time including situations involving “am” and “pm” and conversions between units of time.	**AC9M4SP01** represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects. **AC9M4SP03** recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate. **AC9M4M01** interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units.	**AC9M4M04** estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle. **AC9M4M02** recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units. **AC9M4M03** solve problems involving the duration of time including situations involving “am” and “pm” and conversions between units of time. **AC9M4M01** interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units.	**AC9M4SP02** create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways. **AC9M4M01** interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units.
Statistics and Probability	**AC9M5ST01** acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables to address a question of interest or purpose using software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data **AC9M5P02** conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods		**AC9M4ST03** conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results. **AC9M4ST02** analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data. **AC9M4ST01** acquire data for categorical and discrete numerical variables to address a question of interest or purpose, using digital tools; represent data using many-to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created.	**AC9M4P01** describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events. **AC9M4P02** conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results.

Scope and Sequence: Year 5

Achievement Standard:

By the end of Year 5, students use place value to write and order decimals including decimals greater than one. They express natural numbers as products of factors and identify multiples. Students order and represent add and subtract fractions with the same or related denominators. They represent common percentages and connect them to their fraction and decimal equivalents. Students use their proficiency with multiplication facts and efficient calculation strategies to multiply large numbers by one- and two-digit numbers and divide by single-digit numbers. They check the reasonableness of their calculations using estimation. Students use mathematical modelling to solve financial and other practical problems, formulating and solving problems, choosing arithmetic operations and interpreting results in terms of the situation. They apply properties of numbers and operations to find unknown values in numerical equations involving multiplication and division. Students create and use algorithms to identify and explain patterns in the factors and multiples of numbers.
They choose and use appropriate metric units to measure the attributes of length, mass and capacity, and to solve problems involving perimeter and area. Students convert between 12- and 24-hour time. They estimate, construct and measure angles in degrees. Students use grid coordinates to locate and move positions. They connect objects to their two-dimensional nets. Students perform and describe the results of transformations and identify any symmetries.
They plan and conduct statistical investigations that collect nominal and ordinal categorical and discrete numerical data using digital tools. Students identify the mode and interpret the shape of distributions of data in context. They interpret and compare data represented in line graphs. Students conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes.

Proficiency Strands:

Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly and identifying and describing the relationship between addition and subtraction and between multiplication and division
Fluency includes readily counting numbers in sequences, using informal units iteratively to compare measurements, using the language of chance to describe outcomes of familiar chance events and describing and comparing time durations
Problem-solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations, and matching transformations with their original shape
Reasoning includes using known facts to derive strategies for unfamiliar calculations, comparing and contrasting related models of operations and creating and interpreting simple representations of data.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M5N02** express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another **AC9M5N08** check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context **AC9M5N06** solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers **AC9M5N07** solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction **AC9M5N10** create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and describe emerging patterns **AC9M5N09** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation **AC9M5N04** recognise that 100% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents	**AC9M5N02** express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another **AC9M5N08** check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context **AC9M5N06** solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers **AC9M5N07** solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction **AC9M5N09** use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	**AC9M5N02** express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another **AC9M5N07** solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction **AC9M5N03** compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line **AC9M5N05** solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies	**AC9M5N07** solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction **AC9M5N10** create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and describe emerging patterns **AC9M5N01** interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line **AC9M5N04** recognise that 100% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents
Measurement and Geometry	**AC9M5M03** compare 12- and 24-hour time systems and solve practical problems involving the conversion between them	**AC9M5A01** recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts **AC9M5A02** find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations **AC9M5M01** choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure **AC9M5M02** solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units	**AC9M5M01** choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure **AC9M5M02** solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units **AC9M5M04** estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names	**AC9M5M01** choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure **AC9M5M03** compare 12- and 24-hour time systems and solve practical problems involving the conversion between them
Statistics and Probability	**AC9M4ST03** conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results. **AC9M4ST01** acquire data for categorical and discrete numerical variables to address a question of interest or purpose, using digital tools; represent data using many-to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created.	**AC9M5P02** conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods	**AC9M5P02** conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods	**AC9M5SP01** connect objects to their nets and build objects from their nets using spatial and geometric reasoning **AC9M5SP02** construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement **AC9M5SP03** describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate; recognise what changes and what remains the same, and identify any symmetries **AC9M5P01** list the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely **AC9M5ST03** plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation **AC9M5ST02** interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made

Scope and Sequence: Year 6

Achievement Standard:

By the end of Year 6, students use integers to represent points on a number line and in the Cartesian plane. They solve problems using the properties of prime, composite and square numbers. Students order common fractions, giving reasons, and add and subtract fractions with related denominators. They use all 4 operations with decimals and connect decimal representations of measurements to the metric system. Students solve problems involving finding a fraction, decimal or percentage of a quantity and use estimation to find approximate solutions to problems involving rational numbers and percentages. They use mathematical modelling to solve financial and other practical problems involving percentages and rational numbers, formulating and solving the problem, and justifying choices. Students find unknown values in numerical equations involving combinations of arithmetic operations. They identify and explain rules used to create growing patterns. Students create and use algorithms to generate sets of numbers, using a rule.
They interpret and use timetables. Students convert between common units of length, mass and capacity. They use the formula for the area of a rectangle and angle properties to solve problems. Students identify the parallel cross-section for right prisms. They create tessellating patterns using combinations of transformations. Students locate an ordered pair in any one of the 4 quadrants on the Cartesian plane.
They compare distributions of discrete and continuous numerical and ordinal categorical data sets as part of their statistical investigations, using digital tools. Students critique arguments presented in the media based on statistics. They assign probabilities using common fractions, decimal and percentages. Students conduct simulations using digital tools, to generate and record the outcomes from many trials of a chance experiment. They compare observed frequencies to the expected frequencies of the outcomes of chance experiments.

Proficiency Strands:

Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly and identifying and describing the relationship between addition and subtraction and between multiplication and division
Fluency includes readily counting numbers in sequences, using informal units iteratively to compare measurements, using the language of chance to describe outcomes of familiar chance events and describing and comparing time durations
Problem-solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations, and matching transformations with their original shape
Reasoning includes using known facts to derive strategies for unfamiliar calculations, comparing and contrasting related models of operations and creating and interpreting simple representations of data.

Strand	Term 1	Term 2	Term 3	Term 4
Number and Algebra	**AC9M6N02** identify and describe the properties of prime, composite and square numbers and use these properties to solve problems and simplify calculations **AC9M6N04** apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers **AC9M6N06** multiply and divide decimals by multiples of powers of 10 without a calculator, applying knowledge of place value and proficiency with multiplication facts, using estimation and rounding to check the reasonableness of answers **AC9M6N09** use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made	**AC9M6N04** apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers **AC9M6N09** use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made **AC9M6N01** recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane **AC9M6A01** recognise and use rules that generate visually growing patterns and number patterns involving rational numbers **AC9M6A03** create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns	**AC9M6N03** apply knowledge of equivalence to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order **AC9M6N05** solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions **AC9M6N04** apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers **AC9M6N09** use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made	**AC9M6N05** solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions **AC9M6N07** solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate **AC9M6A02** find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations
Measurement and Geometry	**AC9M6M03** interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys	**AC9M6M01** convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem **AC9M6M04** identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning **AC9M6M02** establish the formula for the area of a rectangle and use it to solve practical problems	**AC9M6M01** convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem **AC9M6M03** interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys **AC9M6M02** establish the formula for the area of a rectangle and use it to solve practical problems	**AC9M6M01** convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem **AC9M6SP02** locate points in the 4 quadrants of a Cartesian plane; describe changes to the coordinates when a point is moved to a different position in the plane **AC9M6SP01** compare the parallel cross-sections of objects and recognise their relationships to right prisms
Statistics and Probability	**AC9M6ST01** interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape **AC9M6P01** recognise that probabilities lie on numerical scales of 0 – 1 or 0% – 100% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals		**AC9M6ST02** identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions	**AC9M6ST03** plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation **AC9M6P03** conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials