Canungra SS –Maths Curriculum V9 2024

		Term 1	Term 2	Term 3	Term 4
Maths	P	**Number and Algebra** • look for and make connections between number names, numerals and quantities from one to 10 • learn to recognise repetition in pattern sequences and apply this to creatively build repeating patterns in a range of contexts • develop a sense of sameness, difference and change when engaging in play-based activities about patterns **Space** • develop a sense of sameness, difference and change when engaging in play-based activities describing position and location • bring mathematical meaning to the use of familiar terms and language when explaining thinking about position and location **Statistics** • explore situations, sparked by curiosity, using physical and virtual materials to represent, sort, quantify and compare data bring mathematical meaning to the use of familiar terms and language when posing and responding to questions about data, and explaining thinking and reasoning	**Number** • look for and make connections between number names, numerals and quantities, and compare quantities from one to 10, using elementary mathematical reasoning in active learning experiences • explore situations, sparked by curiosity, using physical and virtual materials to represent and solve everyday problems that involve quantifying, adding to and taking away from collections to 10 **Measurement** • build confidence and autonomy in being able to make and justify mathematical decisions based on quantification and direct comparisons of duration and events	**Number** • look for and make connections between number names, numerals and quantities, and compare quantities from zero to at least 20, using elementary mathematical reasoning in active learning experiences **Space** • name, create and compare shapes, using elementary mathematical reasoning in active learning experiences • develop a sense of sameness, difference and change when engaging in play-based activities about shapes **Measurement** • build confidence and autonomy in being able to make and justify mathematical decisions based on quantification and direct comparisons of mass, capacity and length of objects	**Number and Algebra** • look for and make connections between number names, numerals and quantities, and compare quantities from zero to at least 20, using elementary mathematical reasoning in active learning experiences • explore situations, sparked by curiosity, using physical and virtual materials to represent and solve everyday problems that involve quantifying, equal sharing, adding to and taking away from collections to at least 10 • learn to recognise repetition in pattern sequences and apply this to creatively build repeating patterns in a range of contexts
		Exploring numbers to 10 and repeating patterns(monitoring) *Describing position and location (monitoring)*	*Solving addition and subtraction problems with numbers to 10* *Exploring duration of events (monitoring)* *Identifying and sorting shapes*	*Comparing objects using length, mass and capacity* *Collecting, sorting and comparing data*	*Applying number knowledge* *Exploring numbers to at least 20*
Maths	1	**Number and Algebra** • demonstrate that numbers to 99 can be represented and composed in various ways • recognise patterns in the environment and choose ways of representing thinking when communicating with others **Space** • use simple transformations, directions and pathways to move the positions of people and objects within a space **Statistics** • use simple surveys to collect and sort data, based on a question of interest • recognise that data can be represented in different ways explain patterns in the results	**Number and Algebra** • partition 1-digit numbers and 2-digit numbers (standard) • recognise patterns in numbers and extend knowledge of numbers to 99 • use physical or virtual materials and diagrams when modelling practical problems (addition and subtraction to 20) through active learning experiences and employ different strategies and discuss the reasonableness of answers • use curiosity and imagination to explore situations and choose ways of representing thinking when communicating with others • quantify collections using skip counting (10s) **Measurement** explain ways of making direct and indirect comparisons and begin to use uniform informal units to measure duration of events	**Number** • partition 2-digit numbers (non-standard) • demonstrate that numbers can be represented, partitioned and composed in various ways • use physical or virtual materials and diagrams when modelling practical problems (addition and subtraction to 20) through active learning experiences and employ different strategies and discuss the reasonableness of answers • recognise patterns in numbers and extend knowledge of numbers to at least 120 **Space** • recognise shapes and objects in the environment • reason spatially and use spatial features to classify shapes and objects **Measurement** explain ways of making direct and indirect comparisons and begin to use uniform informal units to measure attributes (length, mass, capacity)	**Number and Algebra** • use physical or virtual materials and diagrams when modelling practical problems (addition and subtraction to 20) through active learning experiences and employ different strategies and discuss the reasonableness of answers • develop a sense of equivalence, fairness, repetition and variability when engaging in play-based and practical activities • use curiosity and imagination to explore situations, recognise patterns in the environment and choose ways of representing thinking when communicating with others • recognise patterns in numbers and extend knowledge of numbers to at least 120
		Exploring numbers to 99 and repeating patterns *Giving and following directions* *Collecting, representing and interpreting data*	*Exploring numbers, problem-solving and patterns* *Comparing and ordering duration of time*	*Partitioning numbers to at least 120* *Comparing and classifying shapes and objects*	*Understanding and using number* *Comparing and ordering objects using length, mass and capacity*
Maths	2	**Number** • partition and combine numbers to 999 flexibly • partition collections, shapes and objects into equal parts (halves, quarters) **Space** • locate and identify positions on maps and use familiar mathematical language **Statistics** • build the foundations for statistical inquiry by choosing questions based on interests when collecting, representing and interpreting data, and recognising features of different representations • develop a sense of equivalence, chance and variability when engaging in play-based and practical activities	**Number and Algebra** • recognise that mathematics can be used to investigate things students are curious about, to solve addition and subtraction problems and model everyday situations, describing thinking and reasoning using familiar mathematical language • partition and combine numbers to at least 1000 flexibly, recognising and describing the relationship between operations and employing part-part-whole reasoning • use number sentences to formulate additive situations • use mathematical modelling to solve addition and subtraction • compare and contrast related operations and use known addition and subtraction facts to develop strategies for unfamiliar calculations • recognise types of number patterns in different contexts **Measurement** • use uniform units to measure, compare and discuss the duration of events • build a sense of time, connecting this to fractions (halves, quarters)	**Number** • partition collections, shapes and objects into equal parts (halves, quarters and eighths) and build a sense of fractions as a measure, connecting this to measures of turn and representations of time **Space** • describe spatial relationships such as the relative position of objects represented within a two-dimensional space • use uniform units to measure, compare and discuss the attributes of shapes **Measurement** • use uniform units to measure, compare and discuss the attributes of shapes and objects based on length, capacity and mass	**Number and Algebra** • recognise that mathematics can be used to investigate things students are curious about, solve multiplication and division problems and model everyday situations, describing thinking and reasoning using familiar mathematical language • partition and combine numbers flexibly, recognising and describing the relationship between operations and employing part-part-whole reasoning • represent simple multiplicative situations using equal groups and arrays • use mathematical modelling to solve practical problems involving authentic multiplicative situations by representing problems with physical and virtual materials, diagrams, and using different calculation strategies to find solutions • develop a sense of equivalence when engaging in play-based and practical activities
		Exploring numbers to at least 1000 *Locating features and using maps* *Using data to answer a question*	*Exploring numbers, problem-solving and patterns* *Using a calendar and reading time to the quarter-hour*	*Exploring halves, quarters and eighths* *Comparing and classifying shapes* *Measuring and comparing shapes and objects using informal units*	*Understanding and using number*
Maths	3	**Number** • manipulate numbers to 9 999 using understanding of place value in the base-10 number system including partitioning and regrouping **Space** • determine key features of familiar spaces and use these when creating spatial representations (maps) **Statistics** • undertake, with guidance, statistical investigations that are meaningful, making decisions about the use and representation of categorical and discrete numerical data and reporting findings recognise that mathematics has conventions and language enabling the unambiguous communication of ideas and results	**Number and Algebra** • manipulate numbers using a range of strategies that are based on proficiency with single-digit addition facts and understanding of place value in the base-10 number system, partitioning and regrouping • model situations and solve practical problems • begin to apply understanding of algorithms and technology to experiment with numbers and recognise patterns • develop addition and multiplication facts • learn to formulate, choose and use calculation strategies, communicating solutions within a modelling context **Measurement** • use metric units to measure and compare events become increasingly aware of the usefulness of mathematics to model situations and solve practical problems	**Number** • recognise and represent unit fractions and multiples in different ways, communicating solutions within a modelling context **Space** • determine key features of objects and spaces including angles, and use these when building models and spatial representations • become increasingly aware of the usefulness of mathematics to model situations and solve practical problems **Measurement** • use metric units to measure and compare objects become increasingly aware of the usefulness of mathematics to model situations and solve practical problems	**Number** • manipulate numbers beyond 10 000 using understanding of place value in the base-10 number system, partitioning and regrouping • develop, extend and apply addition and multiplication facts and related facts for subtraction and division through recognising connections between operations and develop automaticity for 3, 4, 5, and 10 multiplication facts through games and meaningful practice • learn to formulate, choose and use calculation strategies, communicating solutions within a modelling context • recognise the relationship between dollars and cents and learn to represent money values in different ways **Probability** • develop a qualitative understanding of chance and use the language of chance to describe and compare the outcomes of familiar chance events become increasingly able to understand that different outcomes can be the results of random processes
		Exploring numbers to 9 999 *Interpreting and creating maps* *Conducting a guided statistical investigation*	*Solving number problems and exploring simple patterns* *Measuring and comparing duration and events*	*Representing unit fractions and their multiples* *Identifying angles and classifying objects* *Measuring and comparing objects using familiar metric units*	*Solving practical and financial problems* *Identifying likelihood of events and conducting chance experiments*
Maths	4	**Number** • draw on proficiency with number facts, fractions and decimals to deepen an appreciation of how numbers work (tenths) **Space** • recognise and create line and rotational symmetry using materials and digital software	**Number and Algebra** • develop and use strategies for 2, 3, 4, 5 and 10 x multiplication facts that are based on understanding of multiplication as an operation and knowledge of the commutative law • choose and use efficient calculation strategies for addition and subtraction including unknown values, when modelling problems, communicating solutions within the context of the situation	**Number** • draw on proficiency with number facts, fractions and decimals to deepen an appreciation of how numbers work (tenths, hundredths) **Space** • represent and approximate common attributes of composite shapes and objects **Measurement**	**Number** • choose and use efficient calculation strategies for addition, subtraction, multiplication and division when modelling problems, communicating solutions within the context of the situation • develop and use strategies for multiplication facts that are based on understanding of multiplication as an operation and knowledge of the commutative law

		• create and interpret grid reference systems and directions to locate and describe positions and pathways **Statistics** develop and use surveys to obtain data that is directly relevant to statistical investigations	• use addition or multiplication to create algorithms that generate sets of numbers, recognising and describing any patterns that emerge • become aware of the importance of properties of odd and even numbers when making judgements and reflecting on the reasonableness (rounding and estimating) and results of calculations **Measurement** measure and estimate duration using conventional instruments and appropriate units	• measure and estimate length, mass, capacity and temperature using conventional instruments and appropriate metric units and reflect on the reasonableness of measurements choose and use efficient strategies when modelling problems involving area and perimeter and communicating solutions within the context of these situations	• become aware of the importance of properties of odd and even numbers when making judgements and reflecting on the reasonableness (rounding and estimating) and results of calculations **Probability** • draw on reasoning skills to analyse, categorise and order chance events and identify independent and dependent events investigate variability by conducting repeated chance experiments, observing results and making judgements about how to represent mathematics and mathematical information
		Exploring tenths and hundredths as fractions and decimals *Identifying symmetry and using grid references* *Using surveys to conduct statistical investigations*	*Solving problems using calculation strategies and creating number patterns* *Converting between units of time and solving duration problems*	*Recognising equivalent fractions and decimals* *Comparing angles and combining shapes and objects* *Investigating length, mass, capacity, temperature, perimeter and area*	*Solving problems using all operations* *Ordering likelihood of events and conducting chance experiments*
Maths	**5**	**Number** • apply an understanding of relationships to convert between, and order fractions and decimals • use mathematical modelling to solve practical addition and subtraction problems using fractions **Space** • recognise what stays the same and what changes when shapes undergo transformations • locate and move positions within a grid coordinate system **Statistics** plan, conduct and report findings from statistical investigations that involve nominal and ordinal categorical and discrete numerical data and means for representing data	**Number and Algebra** • experiment with factors and multiples using algorithms and digital tools to create and explain patterns • use mathematical modelling and estimation to solve practical multiplication and division problems, including unknown values **Measurement** • use mathematical modelling to solve practical problems involving the conversion between 12- and 24-hour time apply an understanding of relationships to convert between time systems	**Number** • apply an understanding of relationships to convert between and order fractions and decimals • use mathematical modelling to solve practical addition and subtraction problems using fractions • use common percentages to make proportional comparisons of quantities **Space** • use appropriate instruments and digital tools to construct and measure angles in degrees • apply an understanding of relationships between objects and two-dimensional nets **Measurement** • use appropriate metric units to directly measure the attributes of length, mass and capacity use mathematical modelling to solve practical problems, involving perimeter and area and report on insights and conclusions they reach about the context	**Number and Algebra** • experiment with factors and multiples using algorithms and digital tools to create and explain patterns • use mathematical modelling and estimation to solve practical multiplication and division problems **Probability** develop reasoning skills when considering relationships between events and connecting long-term frequency over many trials to the likelihood of an event occurring
		Exploring decimals greater than one and adding and subtracting fractions *Exploring transformations and grid coordinates* *Conducting a statistical investigation using a range of methods*	*Exploring natural numbers, finding unknowns and solving problems using all operations* *Converting between 12- and 24-hour time*	*Exploring decimals, fractions and percentages* *Measuring angles in degrees and exploring nets of objects* *Comparing and ordering objects using length, mass and capacity*	*Exploring patterns and algorithms* *Conducting repeated chance experiments*
Maths	**6**	**Number** • expand the repertoire of numbers students work with to include rational numbers and the use of integers in practical contexts such as locating points in the four quadrants of a Cartesian plane • solve addition and subtraction problems involving fractions with related denominators **Space** • solve practical problems and justify solutions using coordinates on a Cartesian plane • begin to formally use deductive reasoning in spatial contexts involving tessellating patterns using combinations of transformations **Statistics** determine the mode and range and discuss the shape of distributions in reports of findings from statistical investigations using discrete and continuous numerical and ordinal categorical data	**Number and Algebra** • solve arithmetic problems involving all four operations • use mathematical modelling to solve practical problems, choosing models, representations and calculation strategies and justify solutions • extend knowledge of factors and multiples to understand the properties of prime, composite and square numbers • apply computational approaches to develop algorithms that use rules to generate numbers **Measurement** use mathematical modelling to solve practical problems using timetables	**Number** • solve practical addition and subtraction problems involving fractions with related denominators • solve arithmetic problems involving all four operations with fractions, decimals and percentages of a quantity • compare the parallel cross-sections of objects and recognise relationships to right prisms **Space** • develop a range of written and digital means for representing objects and three-dimensional spaces in two dimensions **Measurement** • use mathematical modelling and justify solutions when converting mass, capacity and length • apply an understanding of area and use multiplicative thinking to establish the formula for the area of a rectangle begin to formally use deductive reasoning in spatial contexts involving lines and angles	**Number and Algebra** • solve arithmetic problems involving all four operations with natural numbers of any size, including unknown values • extend knowledge of factors and multiples to understand the properties of prime, composite and square numbers **Probability** • describe and compare probabilities numerically observe and compare long-run frequencies in repeated chance experiments and simulations
		Using integers and exploring common fractions *Using Cartesian planes and creating tessellating patterns* *Planning and conducting a statistical investigation*	*Exploring properties of numbers, operations and growing patterns* *Interpreting and using timetables*	*Solving problems using fractions, decimals and percentages* *Exploring prisms and solving problems using the area of rectangles and angle properties* *Converting between common units of measurement*	*Solving problems with all four operations, including finding unknown values* *Conducting repeated chance experiments*