

Prep–Year 6 multi-age Mathematics Curriculum and assessment plan

Example

Context and cohort considerations						
<p>The multi-age Prep–Year 6 cohort participates in daily mathematics learning. This plan has considered:</p> <ul style="list-style-type: none"> • summative and formative data from the previous year’s learning and assessment for each year level indicated in the plan • timing of NAPLAN in Term 1 for Years 3 and 5 • exploration and use of digital tools, e.g. virtual materials, electronic devices, programs and dynamic geometric software • age-appropriate contexts that reflect relevant and engaging learning experiences for students, and support the learning and doing of mathematics. 						
Level description — Prep	Level description — Year 1	Level description — Year 2	Level description — Year 3	Level description — Year 4	Level description — Year 5	Level description — Year 6
<p>In Foundation, learning in Mathematics builds on the Early Years Learning Framework and each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, skills, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • explore situations, sparked by curiosity, using physical and virtual materials to represent, sort, quantify, compare and solve everyday problems • look for and make connections between number names, numerals and quantities, and compare quantities and shapes, using elementary mathematical reasoning in active learning experiences • bring mathematical meaning to their use of familiar terms and language when they pose and respond to questions, and 	<p>In Year 1, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • use their curiosity and imagination to explore situations, recognise patterns in their environment and choose ways of representing their thinking when communicating with others • demonstrate that numbers can be represented, partitioned and composed in various ways, recognise patterns in numbers and extend their knowledge of numbers beyond 2 digits • use physical or virtual materials and diagrams when modelling practical problems through active learning 	<p>In Year 2, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency with positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • recognise that mathematics can be used to investigate things they are curious about, to solve practical problems and model everyday situations, describing their thinking and reasoning using familiar mathematical language • partition and combine numbers flexibly, recognising and describing the relationship between addition and subtraction and employing part-part-whole reasoning and relational thinking to solve additive problems 	<p>In Year 3, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • become increasingly aware of the usefulness of mathematics to model situations and solve practical problems • recognise that mathematics has conventions and language enabling the unambiguous communication of ideas and results • experience the power of being able to manipulate numbers using a range of strategies that are based on proficiency with single-digit addition facts and their understanding of place value in the base 10 number system, partitioning and regrouping 	<p>In Year 4, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • draw on their proficiency with number facts, fractions and decimals to deepen their appreciation of how numbers work • develop and use strategies for multiplication that are based on their understanding of multiplication as an operation and their knowledge of laws for arithmetic operations • choose and use efficient strategies when modelling problems, communicating their solutions within the context of the situation • use algorithms to generate sets of numbers, recognising 	<p>In Year 5, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • apply their understanding of relationships to convert between forms of numbers, units and spatial representations • use mathematical modelling to solve practical problems, with guidance, using natural numbers and operations, and report on insights and conclusions they reach about the context • use common percentages to make proportional comparisons of quantities • use appropriate instruments and digital tools to construct 	<p>In Year 6, learning in Mathematics builds on each student’s prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with of concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.</p> <p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> • expand the repertoire of numbers they work with to include rational numbers and the use of integers in practical contexts such as locating points in the 4 quadrants of a Cartesian plane • extend their knowledge of factors and multiples to understand the properties of prime, composite and square numbers • solve arithmetic problems involving all 4 operations with natural numbers of any size • use mathematical modelling to solve practical problems, choosing models,

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<p>explain their thinking and reasoning</p> <ul style="list-style-type: none"> • build confidence and autonomy in being able to make and justify mathematical decisions based on quantification and direct comparisons • 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 they engage in play-based activities. 	<p>experiences, recognise existing patterns, employ different strategies and discuss the reasonableness of answers</p> <ul style="list-style-type: none"> • explain ways of making direct and indirect comparisons and begin to use uniform, informal units to measure some attributes • reason spatially and use spatial features to classify shapes and objects; they recognise these shapes and objects in their environment and use simple transformations, directions and pathways to move the positions of shapes and objects within a space • use simple surveys to collect and sort data, based on a question of interest, recognise that data can be represented in different ways, and explain patterns that they see in the results • develop a sense of equivalence, fairness, repetition and variability when they engage in play-based and practical activities. 	<ul style="list-style-type: none"> • use number sentences to formulate additive situations and represent simple multiplicative situations using equal groups and arrays • use mathematical modelling to solve practical problems involving authentic situations with physical and virtual materials, diagrams, and using different calculation strategies to find solutions • compare and contrast related operations and use known addition and subtraction facts to develop strategies for unfamiliar calculations • recognise types of patterns in different contexts • partition collections, shapes and objects into equal parts and build a sense of fractions as a measure, connecting this to measures of turn and representations of time • use uniform units to measure, compare and discuss the attributes of shapes and objects, and the duration of events • describe spatial relationships such as the relative position of objects represented within a two-dimensional space • build the foundations for statistical inquiry by choosing questions based on their interests as they collect, represent, and interpret data, and recognise features of different representations • develop a sense of equivalence, chance and variability when they engage in play-based and practical activities. 	<ul style="list-style-type: none"> • begin to apply their understanding of algorithms and technology to experiment with numbers and recognise patterns • develop, extend and apply their 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 their solutions within a modelling context • use metric units to measure and compare objects and events • recognise the relationship between dollars and cents and learn to represent money values in different ways • determine key features of objects and spaces, and use these when they build models and spatial representations • undertake, with guidance, statistical investigations that are meaningful to them, making decisions about their use and representation of categorical and discrete numerical data and reporting findings • 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. 	<p>and describing any patterns that emerge</p> <ul style="list-style-type: none"> • become aware of the importance of context and purpose when they make judgements and reflect on the reasonableness of measurements and the results of calculations, and how they choose to represent mathematics and mathematical information • measure and estimate common attributes of objects using conventional instruments and appropriate metric units • develop and use surveys to obtain data that is directly relevant to their statistical investigations • draw on their reasoning skills to analyse, categorise and order chance events and identify independent and dependent events • investigate variability by conducting repeated chance experiments and observing results. 	<p>and measure angles in degrees</p> <ul style="list-style-type: none"> • use appropriate metric units to directly measure the area and perimeter of regular and irregular spaces • locate and move positions within a grid coordinate system • recognise what stays the same and what changes when shapes undergo transformations • experiment with factors and multiples using algorithms and digital tools • plan, conduct and report findings from statistical investigations that involve an increasing range of types of data and means for representing data • develop their reasoning skills when they consider relationships between events and connect long-term frequency over many trials to the likelihood of an event occurring. 	<p>representations and calculation strategies and justify solutions</p> <ul style="list-style-type: none"> • apply computational approaches to develop algorithms that use rules to generate numbers • develop a range of written and digital means for representing objects and three-dimensional spaces in 2 dimensions • apply their understanding of area and use multiplicative thinking to establish the formula for the areas of a rectangle • begin to formally use deductive reasoning in spatial contexts involving lines and angles • describe and compare probabilities numerically • determine the mode and range and discuss the shape of distributions in their reports of findings from their statistical investigations • observe and compare long-run frequencies in repeated chance experiments and simulations.

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
	Duration: 10 weeks	Duration: 10 weeks	Duration: 10 weeks	Duration: 10 weeks
	<p>Making sense of mathematical relationships enhances students' understanding of concepts and helps cultivate procedural fluency, and flexibility in employing various strategies and approaches. This foundation supports future learning and fosters critical and creative thinking skills. Throughout this unit students develop their understanding of number sense and number systems, spatial representations and connections between shapes and objects, symmetry and transformations, and develop their data skills. As students engage in Number, Space and Statistics investigations, they are encouraged to draw conclusions and give reasons for the choices made. Students use simple digital tools to collect information, create content, and to sort, organise and analyse data as appropriate for their respective year level. Students in Years 4–6 also use dynamic geometric software to explore spatial representations.</p> <p>In this unit, teaching and learning experiences focus on:</p> <ul style="list-style-type: none"> number sense and number systems <ul style="list-style-type: none"> natural numbers (Prep–Year 4) rational numbers (Years 5–6) space <ul style="list-style-type: none"> shapes and objects (Prep–Year 6) symmetry (Years 4–5) and transformations (Years 5–6) using dynamic geometric software statistics using digital tools where appropriate (Prep–Year 6). 	<p>Developing an understanding of magnitude or size is a foundational mathematical skill. It empowers students to gauge size in relation to other objects, quantities, or numbers of the same kind and forms the basis for students' ability to order, represent and compare. Throughout this unit, students explore numerical value, quantity and scales of measurement. They actively employ critical and creative thinking skills to identify, process and evaluate information across various Number, Algebra and Measurement contexts. They build on their number sense learning from Unit 1 and apply this understanding to make informed decisions when partitioning, calculating and exploring number patterns, and to communicate their thinking mathematically. Students expand on their place value understandings and make connection to the measurement system while investigating length, mass, capacity, temperature, area and perimeter, as appropriate for their year level.</p> <p>In this unit, teaching and learning experiences focus on:</p> <ul style="list-style-type: none"> extending place value understanding (Prep–Year 6) partitioning, operating and calculation strategies (Prep–Year 6) patterns (Prep–Year 6) measurement <ul style="list-style-type: none"> length, mass, capacity (Prep–Year 6) temperature (Year 4) perimeter and area (Years 4–6). 	<p>An understanding of part-whole relationships equips students with the skills and mindset to approach problems with the ability to explore multiple possibilities and connections. Throughout this unit, students think critically and creatively to explore and combine ideas. Students use the relationships between a whole and its component parts to deepen their understanding of various mathematical concepts. Students build upon learning from Units 1 and 2 extending their awareness of magnitude and enhance their understanding of the number system through the development of partitioning and fractional concepts. Through practical activities, experiments and observations Years 3–6 explore likelihood, drawing on their fractional understandings. All students explore time and duration. They make connections between different representations and units of time, and communicate reasoning for choices made.</p> <p>In this unit, teaching and learning experiences focus on:</p> <ul style="list-style-type: none"> partitioning (Prep–Year 2) fractions (Years 2–6) time and duration (Prep–Year 6) chance experiments (Years 3–6) and simulations (Year 6). 	<p>Creating representations helps students to better understand their environment by making connections between the world of mathematics and the real world. It requires students to draw on their accumulated knowledge, understandings and skills from previous units and enables them to clearly organise and express ideas and relationships. These representations serve as powerful tools for modelling and problem-solving in realistic and engaging situations. This process nurtures valuable dispositions such as inquisitiveness, reasonableness and a readiness to try new ways of doing things, which ultimately leads to a deeper understanding of concepts. During this unit, students form spatial representations to describe location and position, they model number operations and calculations to solve problems, and Years 3–6 students explore angle relationships.</p> <p>In this unit, teaching and learning experiences focus on:</p> <ul style="list-style-type: none"> representing problem situations (Prep) using mathematical modelling (Years 1–6) location and position (Prep–Year 6) angles (Years 3–6).
Prep	<p>Assessment 1 — Project</p> <p>Description: Through an investigation folio, students complete a variety of tasks to explore numbers to at least 20 and familiar shapes.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project</p> <p>Description: Students compile an ongoing digital record of investigations involving using direct comparison strategies to identify length, mass and capacity.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 5 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate their proficiency with partitioning and combining collections.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 7 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate their proficiency with describing the position and the location of themselves and objects.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>
	<p>Assessment 2 — Project</p> <p>Description: Students collect, sort and compare data in response to questions around 'How well do I know my classmates?'</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on quantifying collections and copying and continuing repeating patterns.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on sequencing and comparing events.</p> <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project</p> <p>Description: Students keep a learning journal of practical investigations where they represent problems involving quantifying, equal sharing, adding to and taking away from collections and seek solutions.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Year 1	<p>Assessment 1 — Project</p> <p>Description: Through an investigation folio, students complete a variety of tasks to explore numbers to at least 120 and shapes and objects.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project</p> <p>Description: Students compile an ongoing digital record of investigations involving comparing and ordering objects based on length, mass and capacity, and using uniform informal units to measure length.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 5 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate their proficiency with partitioning and quantifying collections.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 7 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate proficiency with giving and following directions to move people and objects.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>
	<p>Assessment 2 — Project</p> <p>Description: Students collect and record categorical data, create one-to-one displays, and compare and discuss the data around the question 'How well do I know my classmates?'</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on partitioning and creating skip counting and repeating patterns.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on comparing and ordering events based on duration.</p> <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of practical investigations where they represent problems involving addition, subtraction, equal sharing and grouping and seek solutions.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>
Year 2	<p>Assessment 1 — Project</p> <p>Description: Through an investigation folio, students complete a variety of tasks to explore numbers to at least 1000 and classification of shapes.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project</p> <p>Description: Students compile an ongoing digital record of investigations involving using uniform informal units to measure length, mass and capacity.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 5 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate their proficiency with place value.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 7 — Observed demonstration</p> <p>Description: Through practical tasks students demonstrate proficiency with two-dimensional representations and moving position.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>
	<p>Assessment 2 — Project</p> <p>Description: Students use a range of methods to collect, record, represent and interpret categorical data in response to questions around 'How well do I know my classmates?'</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions: Length is considered in the context of the assessment</p>	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on partitioning and describing and continuing additive patterns.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on halves, quarters and eighths, using a calendar and reading an analog clock.</p> <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of practical investigations where they represent additive and multiplicative problems and seek solutions.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>
Year 3	<p>Assessment 1 — Project</p> <p>Description: Through an investigation folio, students complete a variety of tasks to explore natural numbers beyond 10 000 and classification of objects.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project</p> <p>Description: Students compile an ongoing digital record of investigations involving using familiar metric units to measure length, mass and capacity.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions: Up to 1 minute or up to 200 words</p>	<p>Assessment 5 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on unit fractions and formal units of time.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 7 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on angles, money and two-dimensional representations of familiar environments.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
	<p>Assessment 2 — Project: Statistical investigation Description: Students conduct guided statistical investigations involving categorical and discrete numerical data around the question ‘How well do I know my classmates?’ Technique: Project Mode: Written (using digital tools where appropriate) Conditions: Up to 200 words</p>	<p>Assessment 4 — Supervised assessment: Computational thinking Description: Students respond to questions, scenarios, or problems on partitioning, using additive strategies to find unknown values and creating algorithms for simple patterns. Technique: Supervised assessment Mode: Written Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 6 — Project: Probability experiments and simulations Description: Students plan and conduct multiple repeated chance experiments to identify and describe outcomes and the likelihood of everyday events. Technique: Project Mode: Multimodal Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling Description: Students keep a learning journal of practical investigations where they represent problems involving single-digit multiplication and division and seek solutions. Technique: Project Mode: Written (using digital tools where appropriate) Conditions: Up to 200 words</p>
Year 4	<p>Assessment 1 — Project Description: Through an investigation folio, students complete a variety of tasks to explore properties of odd and even numbers, number facts, representations of shapes and objects, transformations and symmetry. Technique: Project Mode: Multimodal Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project Description: Students compile an ongoing digital record of investigations involving using scaled instruments to measure length, mass, capacity, temperature, and approximate perimeters and areas. Technique: Project Mode: Multimodal (using multimedia) Conditions: Up to 1 minute or up to 200 words</p>	<p>Assessment 5 — Supervised assessment Description: Students respond to questions, scenarios, or problems on fractions, decimals and time durations. Technique: Supervised assessment Mode: Written Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 7 — Supervised assessment Description: Students respond to questions, scenarios, or problems on angles and grid references. Technique: Supervised assessment Mode: Written Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>
	<p>Assessment 2 — Project: Statistical investigation Description: Students conduct statistical investigations involving categorical or discrete numerical data around the question ‘How well do I know my classmates?’ Technique: Project Mode: Written (using digital tools to create data representations) Conditions: Up to 200 words</p>	<p>Assessment 4 — Supervised assessment: Computational thinking Description: Students respond to questions, scenarios, or problems on multiplying natural numbers by multiples of 10, finding unknown values and creating algorithms. Technique: Supervised assessment Mode: Written Conditions: Up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 6 — Project: Probability experiments and simulations Description: Students plan and conduct multiple repeated chance experiments to order events or the outcomes of chance experiments in terms of likelihood and identify whether events are independent or dependent. Technique: Project Mode: Multimodal Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling Description: Students keep a learning journal of practical investigations where they represent problems with number sentences and seek solutions. Technique: Project Mode: Written (using digital tools where appropriate) Conditions: Up to 200 words</p>
Year 5	<p>Assessment 1 — Project Description: Through an investigation folio, students complete a variety of tasks to explore natural numbers as products of factors, multiples, objects and their nets, transformations and symmetries. Technique: Project Mode: Multimodal Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project Description: Students compile an ongoing digital record of investigations involving using appropriate metric units to measure length, mass, capacity, and solving problems involving perimeter and area. Technique: Project Mode: Multimodal (using multimedia) Conditions: Up to 2 minutes or up to 400 words</p>	<p>Assessment 5 — Supervised assessment Description: Students respond to questions, scenarios, or problems on fractions, decimals, percentages and 12- and 24-hour time. Technique: Supervised assessment Mode: Written Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 7 — Supervised assessment Description: Students respond to questions, scenarios, or problems on angles and grid coordinates. Technique: Supervised assessment Mode: Written Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>
	<p>Assessment 2 — Project: Statistical investigation Description: Students conduct statistical investigations involving nominal and ordinal categorical and discrete numerical data around the question ‘How well do I know my classmates?’ Technique: Project Mode: Written (using digital tools to create data representations) Conditions: Up to 400 words</p>	<p>Assessment 4 — Supervised assessment: Computational thinking Description: Students respond to questions, scenarios, or problems on decimal numbers, applying properties of numbers to find unknown values and creating algorithms to explain factors and multiples. Technique: Supervised assessment Mode: Written Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 6 — Project: Probability experiments and simulations Description: Students plan and conduct multiple repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes. Technique: Project Mode: Multimodal Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling Description: Students keep a learning journal of practical investigations where they represent problems, choose arithmetic operations and seek solutions. Technique: Project Mode: Written (using digital tools where appropriate) Conditions: Up to 400 words</p>

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Year 6	<p>Assessment 1 — Project</p> <p>Description: Through an investigation folio, students complete a variety of tasks to explore integers, prime, composite and square numbers, right prisms, tessellating patterns and transformations.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 3 — Project</p> <p>Description: Students compile an ongoing digital record of investigations involving converting between common units of length, mass, capacity, and using the formula for area of a rectangle.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions: Up to 2 minutes or up to 400 words</p>	<p>Assessment 5 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on fractions, decimals, percentages and timetables.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 7 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems on angle properties and the Cartesian plane.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>
	<p>Assessment 2 — Project: Statistical investigation</p> <p>Description: Students conduct statistical investigations involving discrete and continuous numerical and ordinal categorical data around the question 'How well do I know my classmates?'</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools to create data representations)</p> <p>Conditions: Up to 400 words</p>	<p>Assessment 4 — Supervised assessment: Computational thinking</p> <p>Description: Students respond to questions, scenarios, or problems on operating with decimals, finding unknown values involving combinations of arithmetic operations, explaining rules to create growing patterns and creating algorithms.</p> <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions: Up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time</p>	<p>Assessment 6 — Project: Probability experiments and simulations</p> <p>Description: Students plan and conduct simulations using digital tools, to generate and record the outcomes from many trials of a chance experiment.</p> <p>Technique: Project</p> <p>Mode: Multimodal</p> <p>Conditions: Practical components are observed by the teacher</p>	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of practical investigations where they represent problems involving percentages and rational numbers and seek solutions.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions: Up to 400 words</p>

Prep

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Observed demonstration	Term/ week	Assessment 7 — Observed demonstration	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. drawings and diagrams, two-dimensional representations, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> making connections between number names, numerals and position in the sequence of numbers from zero to at least 20 naming, creating and sorting familiar shapes and giving their reasoning. <p>Technique: Project</p> <p>Mode: Multimodal (written, spoken/signed and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations to identify the attributes of mass, capacity and length, and use direct comparison strategies to compare objects. They compile an ongoing digital record of discoveries, which may include photographs and videos of experiences and spoken/signed explanations.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 	Term 2 Week 5	<p>Description: Through practical tasks (e.g. manipulation of physical and virtual materials, teacher-student conferences, group discussions and sharing of ideas and thinking) students demonstrate their proficiency when partitioning and combining collections up to 10 in different ways, representing these with numbers.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 may be completed in small groups practical components are observed by the teacher 	Term 3 Week 10	<p>Description: Through practical tasks students demonstrate their proficiency when describing the position and the location of themselves and objects in relation to other objects and people within a familiar space.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 4 may be completed in small groups responses will be recorded digitally practical components are observed by the teacher 	Term 4 Week 4
	<p>Assessment 2 — Project</p> <p>Description: Students explore data through the question 'How well do I know my classmates?' They collect, sort and compare data in response to questions.</p> <p>Technique: Project</p> <p>Mode: Multimodal (spoken/signed and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> use subitising and counting strategies to quantify collections compare the size of collections to at least 20 copy and continue repeating patterns. <p>Technique: Supervised assessment</p> <p>Mode: Written and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 may be completed one-on-one, in small groups or in whole class settings practical components are observed by the teacher 	Term 2 Week 8	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> identify the attributes of duration and use direct comparison strategies to compare events sequence and connect familiar events to the time of day. <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 may be completed one-on-one, in small groups or in whole class settings practical components are observed by the teacher 	Term 3 Week 8	<p>Assessment 8 — Project</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. Students represent practical situations that involve quantifying, equal sharing, adding to and taking away from collections to at least 10.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 practical components are observed by the teacher 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p><u>Students collect, sort and compare data in response to questions in familiar contexts.</u></p>	<p>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. <u>They use subitising and counting strategies to quantify collections. Students compare the size of collections to at least 20.</u> 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. <u>They copy and continue repeating patterns.</u></p> <p><u>Students identify the attributes of mass, capacity, length and duration, and use direct comparison strategies to compare objects and events.</u> 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.</p> <p>Students collect, sort and compare data in response to questions in familiar contexts.</p>	<p>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. <u>They partition and combine collections up to 10 in different ways, representing these with numbers.</u> 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.</p> <p><u>Students identify the attributes of mass, capacity, length and duration, and use direct comparison strategies to compare objects and events.</u> <u>They sequence and connect familiar events to the time of day.</u> 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.</p> <p>Students collect, sort and compare data in response to questions in familiar contexts.</p>	<p>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. <u>Students represent practical situations that involve quantifying, equal sharing, adding to and taking away from collections to at least 10.</u> They copy and continue repeating patterns.</p> <p>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. <u>They describe the position and the location of themselves and objects in relation to other objects and people within a familiar space.</u></p> <p>Students collect, sort and compare data in response to questions in familiar contexts.</p>
Moderation	Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.

Content descriptions — Prep	Units				Content descriptions — Prep	Units				Content descriptions — Prep	Units			
Number	1	2	3	4	Algebra	1	2	3	4	Measurement	1	2	3	4
name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals AC9MFN01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recognise, copy and continue repeating patterns represented in different ways AC9MFA01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning AC9MFM01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
recognise and name the number of objects within a collection up to 5 using subitising AC9MFN02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						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 AC9MFM02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning AC9MFN03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts AC9MFN04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies AC9MFN05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Prep	Units				Content descriptions — Prep	Units				Content descriptions — Prep	Units			
represent practical situations that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies AC9MFN06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Prep	Units				Content descriptions — Prep	Units			
Space	1	2	3	4	Statistics	1	2	3	4
sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons AC9MFSP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations AC9MFST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
describe the position and location of themselves and objects in relation to other people and objects within a familiar space AC9MFSP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					

Year 1

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Observed demonstration	Term/ week	Assessment 7 — Observed demonstration	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. drawings and diagrams, two-dimensional representations, reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> connecting number names, numerals and quantities ordering numbers to at least 120 making, comparing and classifying shapes and objects using obvious features. <p>Technique: Project</p> <p>Mode: Multimodal (written, spoken/signed and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations to compare and order objects based on the attributes of length, mass and capacity, communicating reasoning. They also measure the length of shapes and objects using uniform informal units. Students compile an ongoing digital record of discoveries, which may include photographs and videos of experiences and spoken/signed explanations.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 	Term 2 Week 5	<p>Description: Through practical tasks (e.g. manipulation of physical and virtual materials, teacher-student conferences, group discussions and sharing of ideas and thinking) students demonstrate their proficiency when partitioning collections into equal groups and skip counting in twos, fives or tens to quantify collections to at least 120.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 may be completed in small groups practical components are observed by the teacher 	Term 3 Week 10	<p>Description: Through practical tasks students demonstrate their proficiency when giving and following directions to move people and objects within a space.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 4 may be completed in small groups responses will be recorded digitally practical components are observed by the teacher 	Term 4 Week 4
	<p>Assessment 2 — Project</p> <p>Description: Students explore data through the question ‘How well do I know my classmates?’ They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies. They use digital tools where appropriate.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> 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 use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit. <p>Technique: Supervised assessment</p> <p>Mode: Written and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 may be completed one-on-one, in small groups or in whole class settings practical components are observed by the teacher 	Term 2 Week 8	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> compare and order events based on duration attributes, communicating reasoning. <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 may be completed one-on-one, in small groups or in whole class settings practical components are observed by the teacher 	Term 3 Week 8	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. Students solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve problems involving addition, subtraction, equal sharing and grouping, using calculation strategies.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 practical components are observed by the teacher 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p>They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.</p>	<p>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.</p> <p>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.</p> <p>They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.</p>	<p>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.</p> <p>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.</p> <p>They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.</p>	<p>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.</p> <p>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.</p> <p>They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.</p>
Moderation	Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.

Content descriptions — Year 1	Units				Content descriptions — Year 1	Units				Content descriptions — Year 1	Units			
Number	1	2	3	4	Algebra	1	2	3	4	Measurement	1	2	3	4
recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts AC9M1N01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recognise, continue and create pattern sequences, with numbers, symbols, shapes and objects, formed by skip counting, initially by twos, fives and tens AC9M1A01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	compare directly and indirectly and order objects and events using attributes of length, mass, capacity and duration, communicating reasoning AC9M1M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones AC9M1N02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit AC9M1A02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end AC9M1M02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting AC9M1N03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						describe the duration and sequence of events using years, months, weeks, days and hours AC9M1M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies AC9M1N04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Year 1	Units				Content descriptions — Year 1	Units				Content descriptions — Year 1	Units			
use mathematical modelling to solve practical problems involving additive situations including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem AC9M1N05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem AC9M1N06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Year 1	Units				Content descriptions — Year 1	Units			
Space	1	2	3	4	Statistics	1	2	3	4
make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them AC9M1SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols AC9M1ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
give and follow directions to move people and objects to different locations within a space AC9M1SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	represent collected data for a categorical variable using one-to-one displays and digital tools where appropriate; compare the data using frequencies and discuss the findings AC9M1ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Year 2

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Observed demonstration	Term/ week	Assessment 7 — Observed demonstration	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. drawings and diagrams, two-dimensional representations, written reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> ordering and representing numbers to at least 1000 comparing and classifying shapes, describing features using formal spatial terms. <p>Technique: Project</p> <p>Mode: Multimodal (written, spoken/signed and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations, using uniform informal units to measure and compare shapes and objects. They compile an ongoing digital record of discoveries, which may include photographs and videos of experiences and spoken/signed explanations.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 	Term 2 Week 5	<p>Description: Through practical tasks (e.g. manipulation of physical and virtual materials, teacher-student conferences, group discussions and sharing of ideas and thinking) students demonstrate their proficiency when applying knowledge of place value to rearrange and rename two- and three-digit numbers in terms of their parts.</p> <p>Technique: Observed demonstration</p> <p>Mode: Written, spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 may be completed in small groups practical components are observed by the teacher 	Term 3 Week 10	<p>Description: Through practical tasks students demonstrate their proficiency when locating and identifying positions of features in two-dimensional representations and moving position by following directions and pathways.</p> <p>Technique: Observed demonstration</p> <p>Mode: Spoken/signed and practical</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 4 may be completed in small groups responses will be recorded digitally practical components are observed by the teacher 	Term 4 Week 4
	<p>Assessment 2 — Project</p> <p>Description: Students explore data through the question 'How well do I know my classmates?' They use a range of methods to collect, record, represent and interpret categorical data in response to questions. They use digital tools where appropriate.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> apply knowledge of place value to partition two- and three-digit numbers in terms of their parts describe and continue patterns that increase and decrease additively by a constant amount and identify missing elements recall and demonstrate proficiency with addition and subtraction facts within 20 and multiplication facts for twos. <p>Technique: Supervised assessment</p> <p>Mode: Written and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 practical components are observed by the teacher 	Term 2 Week 8	<p>Assessment 6 — Supervised assessment</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> identify and represent part-whole relationships of halves, quarters and eighths in measurement contexts determine the number of days between events using a calendar and read time on an analog clock to the hour, half hour and quarter hour. <p>Technique: Supervised assessment</p> <p>Mode: Spoken/signed and practical (with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> may be completed over multiple lessons or broken into components in week 8 practical components are observed by the teacher 	Term 3 Week 8	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. Students regroup partitioned numbers to assist in calculations. Students use mathematical modelling to solve practical additive and multiplicative problems, including money transactions, representing the situation and choosing calculation strategies.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 practical components are observed by the teacher 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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 analog 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.</p> <p>They use a range of methods to collect, record, represent and interpret categorical data in response to questions.</p>	<p>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.</p> <p>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 analog 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.</p> <p>They use a range of methods to collect, record, represent and interpret categorical data in response to questions.</p>	<p>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.</p> <p>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 analog 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.</p> <p>They use a range of methods to collect, record, represent and interpret categorical data in response to questions.</p>	<p>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.</p> <p>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 analog 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.</p> <p>They use a range of methods to collect, record, represent and interpret categorical data in response to questions.</p>
Moderation	Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.

Content descriptions — Year 2	Units				Content descriptions — Year 2	Units				Content descriptions — Year 2	Units			
	1	2	3	4		1	2	3	4		1	2	3	4
Number					Algebra					Measurement				
recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines AC9M2N01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M2A01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary AC9M2M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 AC9M2N02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts AC9M1A02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events AC9M2M02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving AC9M2N03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving AC9M2A03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	identify the date and determine the number of days between events using calendars AC9M2M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Content descriptions — Year 2	Units				Content descriptions — Year 2	Units				Content descriptions — Year 2	Units			
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 AC9M2N04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						recognise and read the time represented on an analog clock to the hour, half-hour and quarter-hour AC9M2M04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies AC9M2N05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations AC9M2M05	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 AC9M2N06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Year 2	Units				Content descriptions — Year 2	Units			
Space	1	2	3	4	Statistics	1	2	3	4
recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as 'opposite', 'parallel', 'curved' and 'straight' AC9M2SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables AC9M2ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
locate positions in two dimensional representations of a familiar space; move positions by following directions and pathways AC9M2SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	create different graphical representations of data using software where appropriate; compare the different representations, identify and describe common and distinctive features in response to questions AC9M2ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Year 3

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Supervised assessment	Term/ week	Assessment 7 — Supervised assessment	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. drawings and diagrams, construction of three-dimensional models, written reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> ordering and representing natural numbers beyond 10 000 making, comparing and classifying objects using key features. <p>Technique: Project</p> <p>Mode: Multimodal (written, spoken/signed and practical with physical materials)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students engage in multiple practical measurement investigations, using familiar metric units when estimating, comparing and measuring the attributes of objects. They compile an ongoing record of their discoveries, which may include photographs and videos of experiences and spoken/signed explanations. Students then create a multimedia presentation and may include a spoken voice over to share their understandings.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 multimodal responses up to 1 minute or up to 200 words (including diagrams, tables and drawings) 	Term 2 Week 5	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> represent unit fractions and their multiples in different ways use familiar metric units when estimating, comparing and measuring the attributes of events estimate and compare measures of duration using formal units of time. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 6 	Term 3 Week 6	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> identify angles as measures of turn and compare them to right angles represent money values in different ways interpret and create two-dimensional representations of familiar environments. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 4 	Term 4 Week 4
	<p>Assessment 2 — Project: Statistical investigation</p> <p>Description: Students explore data through statistical investigations around the question 'How well do I know my classmates?' They 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. They use digital tools where appropriate.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 written responses up to 200 words (including diagrams, tables and drawings) 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment: Computational thinking</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> partition, rearrange and regroup two- and three-digit numbers in different ways to assist in calculations 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 find unknown values in number sentences involving addition and subtraction create algorithms to investigate numbers and explore simple patterns. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 8 	Term 2 Week 8	<p>Assessment 6 — Project: Probability experiment</p> <p>Description: Students plan and conduct multiple repeated chance experiments and record responses in an investigation report. 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.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with materials to conduct chance experiments)</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 9 practical components are observed by the teacher 	Term 3 Week 9	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. Students use mathematical modelling to solve practical problems using a range of strategies involving single-digit multiplication and division, recalling multiplication facts for twos, threes, fours, fives and tens. They make estimates and determine the reasonableness of financial and other calculations.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 written responses up to 200 words (including diagrams, tables and drawings) 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>
Moderation	Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.	Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.

Content descriptions — Year 3	Units				Content descriptions — Year 3	Units				Content descriptions — Year 3	Units			
	1	2	3	4		1	2	3	4		1	2	3	4
Number recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000 AC9M3N01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Algebra recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences AC9M3A01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measurement identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates AC9M3M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
recognise and represent unit fractions including $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways; combine fractions with the same denominator to complete the whole AC9M3N02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator AC9M3A02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings AC9M3M02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Content descriptions — Year 3	Units				Content descriptions — Year 3	Units				Content descriptions — Year 3	Units			
add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator AC9M3N03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts AC9M3A03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events AC9M3M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies AC9M3N04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						describe the relationship between the hours and minutes on analog and digital clocks, and read the time to the nearest minute AC9M3M04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations AC9M3N05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						identify angles as measures of turn and compare angles with right angles in everyday situations AC9M3M05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 AC9M3N06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>						recognise the relationships between dollars and cents and represent money values in different ways AC9M3M06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns AC9M3N07	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Content descriptions — Year 3	Units				Content descriptions — Year 3	Units				Content descriptions — Year 3	Units			
Space	1	2	3	4	Statistics	1	2	3	4	Probability	1	2	3	4
make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses AC9M3SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M3ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M3P01	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
interpret and create two dimensional representations of familiar environments, locating key landmarks and objects relative to each other AC9M3SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context AC9M2ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation AC9M3P02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest AC9M3ST03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Year 4

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Supervised assessment	Term/ week	Assessment 7 — Supervised assessment	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. diagrams, symmetrical patterns, written reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> using their proficiency with addition and multiplication facts to add and subtract, multiply and divide numbers efficiently using the properties of odd and even numbers representing and approximating shapes and objects in the environment identifying line and rotational symmetry in plane shapes creating symmetrical patterns. <p>Technique: Project</p> <p>Mode: Multimodal (written and spoken/signed with digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations, using scaled instruments and appropriate units to measure length, mass, capacity and temperature, and measuring and approximating perimeters and areas. They compile an ongoing digital record of discoveries, which may include photographs and videos of experiences and spoken/signed explanations. Students then create a multimedia presentation and may include a spoken voice over to share their understandings.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 multimodal responses up to 1 minute or up to 200 words (including diagrams, tables and drawings) 	Term 2 Week 5	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> recognise equivalent fractions and make connections between fraction and decimal notations count and represent fractions on a number line convert between units of time when solving problems involving duration. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 6 	Term 3 Week 6	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> compare angles relative to a right angle using angle names create and interpret grid references. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 4 	Term 4 Week 4
	<p>Assessment 2 — Project: Statistical investigation</p> <p>Description: Students explore data through statistical investigations around the question 'How well do I know my classmates?' 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.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools to create data representations)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 written responses up to 200 words (including diagrams, tables and drawings) 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment: Computational thinking</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> use their understanding of place value to represent tenths and hundredths in decimal form and to multiply natural numbers by multiples of 10 find unknown values in numerical equations involving addition and subtraction follow and create algorithms that generate sets of numbers and identify emerging patterns. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 8 	Term 2 Week 8	<p>Assessment 6 — Project: Probability experiment</p> <p>Description: Students plan and conduct multiple repeated chance experiments and record responses in an investigation report. 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.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with materials to conduct chance experiments)</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 9 practical components are observed by the teacher 	Term 3 Week 9	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. Students 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. They choose rounding and estimation strategies to determine whether results of calculations are reasonable.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 written responses up to 200 words (including diagrams, tables and drawings) 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>
Moderation	<p>Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>

Content descriptions — Year 4	Units				Content descriptions — Year 4	Units				Content descriptions — Year 4	Units			
Number	1	2	3	4	Algebra	1	2	3	4	Measurement	1	2	3	4
recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals AC9M4N01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations AC9M4A01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M4M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
explain and use the properties of odd and even numbers AC9M4N02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M4A02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units AC9M4M02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation AC9M4N03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						solve problems involving the duration of time including situations involving 'am' and 'pm' and conversions between units of time AC9M4M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines AC9M4N04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle AC9M4M04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 AC9M4N05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder AC9M4N06	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions AC9M4N07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
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 AC9M4N08	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns AC9M4N09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Content descriptions — Year 4	Units				Content descriptions — Year 4	Units				Content descriptions — Year 4	Units			
Space	1	2	3	4	Statistics	1	2	3	4	Probability	1	2	3	4
represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects AC9M4SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M4ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M4P01	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways AC9M4SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 AC9M4ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results AC9M4P02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate AC9M4SP03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M4ST03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Year 5

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
Assessment	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Supervised assessment	Term/ week	Assessment 7 — Supervised assessment	Term/ week
	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. diagrams, geometric representations, written reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> expressing natural numbers as products of factors and identifying multiples using 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 connecting objects to their two-dimensional nets performing and describing the results of transformations, identifying any symmetries. <p>Technique: Project</p> <p>Mode: Multimodal (written and spoken/signed with digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations, choosing and using appropriate metric units to measure length, mass and capacity, and to solve problems involving perimeter and area. They compile an ongoing record of their discoveries, which may include photographs and videos of experiences and spoken/signed explanations. Students then create a multimedia presentation and may include a spoken voice over to share their understandings.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 multimodal responses up to 2 minutes or up to 400 words (including diagrams, tables and drawings) 	Term 2 Week 5	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> order and represent, add and subtract fractions with the same or related denominators represent common percentages and connect them to their fraction and decimal equivalents convert between 12- and 24-hour time. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 6 	Term 3 Week 6	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> estimate, construct and measure angles in degrees use grid coordinates to locate and move positions. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 4 	Term 4 Week 4
	Assessment 2 — Project: Statistical investigation	Term 1 Week 6	Assessment 4 — Supervised assessment: Computational thinking	Term 2 Week 8	Assessment 6 — Project: Probability experiment	Term 3 Week 9	Assessment 8 — Project: Mathematical modelling	Term 4 Week 8
	<p>Description: Students explore data through statistical investigations around the question 'How well do I know my classmates?' 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.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools to create data representations)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 written responses up to 400 words (including diagrams, tables and drawings) 		<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> use place value to write and order decimals including decimals greater than one apply properties of numbers and operations to find unknown values in numerical equations involving multiplication and division create and use algorithms to identify and explain patterns in the factors and multiples of numbers. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 8 		<p>Description: Students plan and conduct multiple repeated chance experiments and record responses in an investigation report. Students conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with materials to conduct chance experiments)</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 9 practical components are observed by the teacher 		<p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. 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 check the reasonableness of their calculations using estimation.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 written responses up to 400 words (including diagrams, tables and drawings) 	

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p><u>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.</u> Students conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes.</p>	<p><u>By the end of Year 5, students use place value to write and order decimals including decimals greater than one.</u> 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. <u>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.</u></p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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. <u>Students conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes.</u></p>	<p>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. <u>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.</u> 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.</p> <p>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.</p> <p>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.</p>
Moderation	<p>Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>

Content descriptions — Year 5	Units				Content descriptions — Year 5	Units				Content descriptions — Year 5	Units			
Number	1	2	3	4	Algebra	1	2	3	4	Measurement	1	2	3	4
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 AC9M5N01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts AC9M5A01	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M5M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another AC9M5N02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations AC9M5A02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units AC9M5M02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 AC9M5N03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						compare 12- and 24-hour time systems and solve practical problems involving the conversion between them AC9M5M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 AC9M5N04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names AC9M5M04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies AC9M5N05	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
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 AC9M5N06	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
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 AC9M5N07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context AC9M5N08	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
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 AC9M5N09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
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 AC9M5N010	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Content descriptions — Year 5	Units				Content descriptions — Year 5	Units				Content descriptions — Year 5	Units			
Space	1	2	3	4	Statistics	1	2	3	4	Probability	1	2	3	4
connect objects to their nets and build objects from their nets using spatial and geometric reasoning AC9M5SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M5ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	list the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely AC9M5P01	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement AC9M5SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made AC9M5ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 AC9M5SP03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M5ST03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Year 6

	Unit 1 — Making sense of relationships		Unit 2 — Sizing things up		Unit 3 — Parts and wholes		Unit 4 — Representing my world	
	Assessment 1 — Project	Term/ week	Assessment 3 — Project	Term/ week	Assessment 5 — Supervised assessment	Term/ week	Assessment 7 — Supervised assessment	Term/ week
Assessment	<p>Description: Through an investigation folio, students complete a variety of tasks to explore number sense and geometry concepts. The investigation folio includes annotated samples (e.g. creation of geometric representations, written reflections, videos with spoken/signed explanations) showing evidence of:</p> <ul style="list-style-type: none"> using integers to represent points on a number line solving problems using the properties of prime, composite and square numbers identifying the parallel cross-section for right prisms creating tessellating patterns using combinations of transformations. <p>Technique: Project</p> <p>Mode: Multimodal (written and spoken/signed with digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 10 practical components are observed by the teacher 	Term 1 Week 10	<p>Description: Students undertake multiple practical measurement investigations, converting between common units of length, mass and capacity, and using the formula for the area of a rectangle to solve problems. They compile an ongoing record of their discoveries, which may include photographs and videos of experiences and spoken/signed explanations. Students then create a multimedia presentation and may include a spoken voice over to share their understandings.</p> <p>Technique: Project</p> <p>Mode: Multimodal (using multimedia)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 2 and completed over multiple lessons by end of week 5 multimodal responses up to 2 minutes or up to 400 words (including diagrams, tables and drawings) 	Term 2 Week 5	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> order common fractions, giving reasons, and add and subtract fractions with related denominators solve problems involving finding a fraction, decimal or percentage of a quantity use estimation to find approximate solutions to problems involving rational numbers and percentages interpret and use timetables. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 6 	Term 3 Week 6	<p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> use integers to represent points in the Cartesian plane use angle properties to solve problems locate an ordered pair in any one of the 4 quadrants on the Cartesian plane. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 4 	Term 4 Week 4
	<p>Assessment 2 — Project: Statistical investigation</p> <p>Description: Students explore data through statistical investigations around the question 'How well do I know my classmates?' 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.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools to create data representations)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 5 and completed over multiple lessons by end of week 6 written responses up to 400 words (including diagrams, tables and drawings) 	Term 1 Week 6	<p>Assessment 4 — Supervised assessment: Computational thinking</p> <p>Description: Students respond to questions, scenarios, or problems that require them to:</p> <ul style="list-style-type: none"> use all 4 operations with decimals and connect decimal representations of measurements to the metric system find unknown values in numerical equations involving combinations of arithmetic operations identify and explain rules used to create growing patterns create and use algorithms to generate sets of numbers, using a rule. <p>Technique: Supervised assessment</p> <p>Mode: Written</p> <p>Conditions:</p> <ul style="list-style-type: none"> up to 60 minutes, plus 5 minutes perusal, planning and/or teacher instruction time may be completed over multiple lessons or broken into components in week 8 	Term 2 Week 8	<p>Assessment 6 — Project: Probability experiment and simulations</p> <p>Description: Students plan and conduct multiple repeated chance experiments and record responses in an investigation report. 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.</p> <p>Technique: Project</p> <p>Mode: Multimodal (written and practical with materials and simulations to conduct chance experiments)</p> <p>Conditions:</p> <ul style="list-style-type: none"> completed over multiple lessons in week 9 practical components are observed by the teacher 	Term 3 Week 9	<p>Assessment 8 — Project: Mathematical modelling</p> <p>Description: Students keep a learning journal of annotated work samples, photographs and written reflections. They engage in practical investigations where they represent problems and seek solutions. They use mathematical modelling to solve financial and other practical problems involving percentages and rational numbers, formulating and solving the problem, and justifying choices.</p> <p>Technique: Project</p> <p>Mode: Written (using digital tools where appropriate)</p> <p>Conditions:</p> <ul style="list-style-type: none"> started in week 6 and completed over multiple lessons by end of week 8 written responses up to 400 words (including diagrams, tables and drawings) 	Term 4 Week 8

	Unit 1 — Making sense of relationships	Unit 2 — Sizing things up	Unit 3 — Parts and wholes	Unit 4 — Representing my world
Achievement standard	<p>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.</p> <p>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.</p> <p><u>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.</u> 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.</p>	<p>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. <u>They use all 4 operations with decimals and connect decimal representations of measurements to the metric system.</u> 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. <u>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.</u></p> <p>They interpret and use timetables. Students convert between common units of length, mass and capacity. <u>They use the formula for the area of a rectangle and angle properties to solve problems.</u> 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.</p> <p>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.</p>	<p>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. <u>Students order common fractions, giving reasons, and add and subtract fractions with related denominators.</u> They use all 4 operations with decimals and connect decimal representations of measurements to the metric system. <u>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.</u> 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.</p> <p><u>They interpret and use timetables.</u> 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.</p> <p>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. <u>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.</u></p>	<p>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. <u>They use mathematical modelling to solve financial and other practical problems involving percentages and rational numbers, formulating and solving the problem, and justifying choices.</u> 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.</p> <p>They interpret and use timetables. Students convert between common units of length, mass and capacity. <u>They use the formula for the area of a rectangle and angle properties to solve problems.</u> Students identify the parallel cross-section for right prisms. They create tessellating patterns using combinations of transformations. <u>Students locate an ordered pair in any one of the 4 quadrants on the Cartesian plane.</u></p> <p>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.</p>
Moderation	<p>Expert: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>

Content descriptions — Year 6					Content descriptions — Year 6					Content descriptions — Year 6				
Number	Units				Algebra	Units				Measurement	Units			
	1	2	3	4		1	2	3	4		1	2	3	4
recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane AC9M6N01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	recognise and use rules that generate visually growing patterns and number patterns involving rational numbers AC9M6A01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M6M01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
identify and describe the properties of prime, composite and square numbers and use these properties to solve problems and simplify calculations AC9M6N02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations AC9M6A02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	establish the formula for the area of a rectangle and use it to solve practical problems AC9M6M02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 AC9M6N03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 AC9M6A03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys AC9M6M03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 AC9M6N04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						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 AC9M6M04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions AC9M6N05	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
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 AC9M6N06	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
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 AC9M6N07	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies AC9M6N08	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
use mathematical modelling to solve practical problems involving natural and 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 AC9M6N09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Content descriptions — Year 6	Units				Content descriptions — Year 6	Units				Content descriptions — Year 6	Units			
Space	1	2	3	4	Statistics	1	2	3	4	Probability	1	2	3	4
compare the parallel cross-sections of objects and recognise their relationships to right prisms AC9M6SP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M6ST01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M6P01	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 AC9M6SP02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions AC9M6ST02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M6P02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometric software where appropriate AC9M6SP03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 AC9M6ST03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

General capabilities	Units			
	1	2	3	4
Critical and creative thinking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Digital literacy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethical understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intercultural understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Literacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Numeracy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Personal and social capability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cross-curriculum priorities	Units			
	1	2	3	4
Aboriginal and Torres Strait Islander histories and cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asia and Australia's engagement with Asia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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