

Mathematics

Reception to year 10

Version 1.0



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Terminology

The South Australian Department for Education uses the term ‘Aboriginal’ to refer to people who identify as Aboriginal, Torres Strait Islander, or both Aboriginal and Torres Strait Islander. This term is preferred by Aboriginal South Australians and the department.



SA Curriculum Framework: Essential Learning summary

Why Mathematics

Mathematics is a universal language that communicates across cultures and contexts. By thinking and working mathematically, we learn to recognise, explore and describe patterns and connections we see in our world. This equips us to predict, problem solve and make sound decisions. In the process, we build resilience and reflective habits, enabling us to interpret and engage confidently with challenges in both familiar and unfamiliar settings.

Dispositions

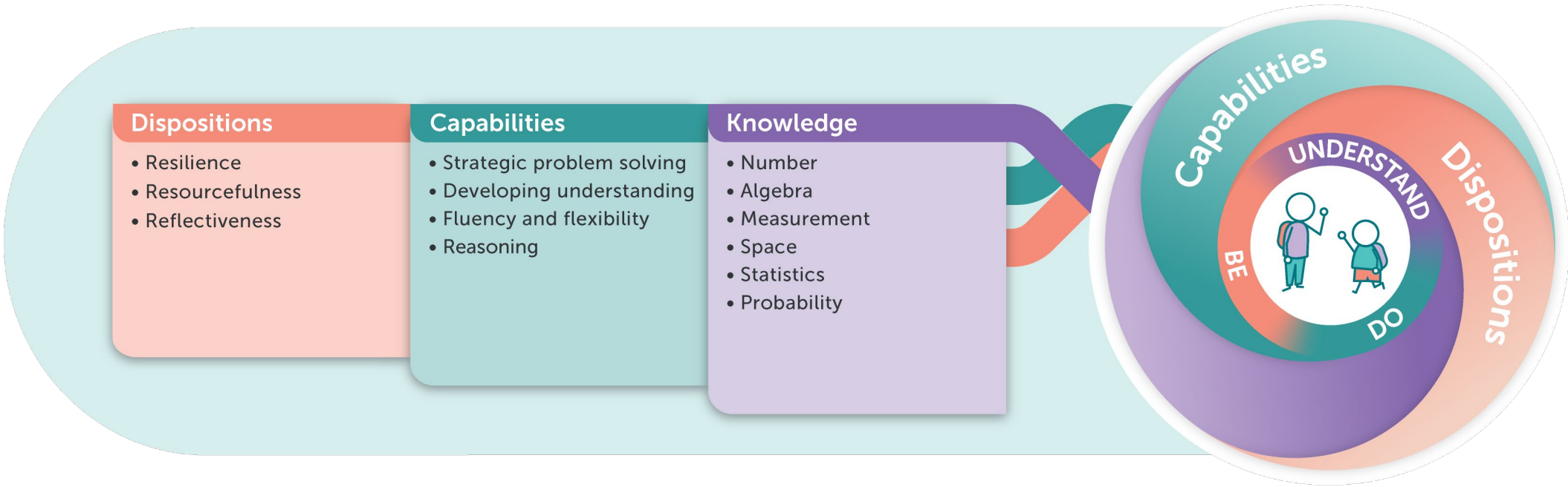
Resilience	Resourcefulness	Reflectiveness
What it is: Persevering and adapting in the face of challenges. Why it matters: Being resilient helps learners view challenges and mistakes as opportunities for growth. It encourages them to embrace productive struggle, review and adapt strategies, and persevere through setbacks.	What it is: Making the most of what is available to find effective ways to navigate challenges. Why it matters: Being resourceful enables learners to draw on their own and others’ knowledge and skills and use a range of tools and strategies. In doing so, they are better equipped to explore possibilities, find solutions and develop their understanding.	What it is: Thoughtfully considering the world around us, our emotions, behaviours, perspectives and ways of learning, then monitoring and adjusting these based on insights gained. Why it matters: Being reflective engages learners in monitoring their thinking, evaluating their strategies and adapting their approach to improve problem solving, accuracy and efficiency. It develops greater self-awareness, deeper understanding and helps learners navigate uncertainty through purposeful, considered action.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
What it is: Making sense of unfamiliar or challenging situations where solutions are not immediately obvious. It involves interpreting situations, exploring patterns, reasoning, making choices and testing strategies to find and justify solutions. Why it matters: It enables learners to connect and apply their understanding to real-world contexts to inform decision making.	What it is: Making sense of ideas and procedures, making connections between different representations and knowing why each of the ideas and relationships apply in the way they do. Why it matters: Developing understanding enables learners to make connections between ideas, apply knowledge and procedures in unfamiliar contexts, and build a strong conceptual foundation for further learning.	What it is: Fluency is using mathematical facts, understandings, procedures and language accurately and efficiently. Flexibility is choosing and adapting strategies to suit different problems and contexts. Why it matters: Adapting strategies and adjusting one’s approach are essential for solving complex, unfamiliar and non-routine problems. Although the efficient use of procedures and automatic recall of facts are important, they must be complemented by flexible thinking and deep conceptual understanding.	What it is: Thinking logically to analyse, justify and generalise mathematical concepts, relationships and solutions. Why it matters: Mathematical reasoning is a foundation for deepening understanding and strengthening critical thinking, enabling learners to make sense of mathematics and to communicate and defend their mathematical processes and conclusions.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
What it is: Representing quantity, values, and relationships between entities. Why it matters: Number is a universal means of communication. It allows us to make sense of the numerical world, enabling comparisons and calculations to understand and navigate the world.	What it is: Recognising patterns and relationships, making generalisations and representing these generalisations using symbols, variables and expressions. Why it matters: Algebra enables learners to think abstractly, recognise and represent patterns, make predictions and express mathematical relationships across contexts.	What it is: Quantifying and attributing an object, quantity or event using defined units, instruments and measures. Why it matters: Measurement enables us to describe and compare attributes and understand the physical world. It enables us to evaluate, make informed decisions, justify the way resources are allocated and identify opportunities for improvement across contexts.	What it is: Representing and working with location, direction, shape, placement, proximity and transformation of an object at macro, local and micro scales in natural and constructed worlds. Why it matters: Understanding space allows us to develop spatial reasoning and create visualisations, designs and models across contexts.	What it is: Collecting, analysing and interpreting data to identify trends, describe patterns, make informed judgements and present a narrative based on population data. Why it matters: Statistical literacy enables us to extract meaning from data, evaluate and analyse the validity and accuracy of claims and representations to address misinformation, and make informed decisions.	What it is: Determining uncertainty, expectation and likelihood by assigning numerical values to possible outcomes. Why it matters: Probability enables us to make informed decisions, assess risk, evaluate the chances of events occurring and contribute to rational judgements in various contexts.



The dispositions, capabilities and knowledge embedded in the SA Curriculum: Mathematics

Mathematics – Reception

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • form a conjecture, even when unsure whether it will be correct • revise their mathematical thinking in response to an error, difficulty or unexpected result • stay engaged when an answer or approach is not immediately clear, reconsidering their thinking and trying another way to make progress.	This disposition may be evident when learners, for example: • ask questions to draw on what others know to make progress with a mathematical problem • choose and use different approaches to a mathematical challenge when one method is not effective • select and use tools or representations that help them show or develop their mathematical thinking.	This disposition may be evident when learners, for example: • explain choices they made when solving a mathematical problem in order to recognise what helped their thinking • identify strengths and areas for growth in their mathematical learning to inform what they might do next • notice when a mathematical strategy isn't working and consider why when deciding whether to change their approach.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • exploring different representations in practical situations to refine their mathematical decision making • deciding which strategy or representation to use or experiment with to draw on previously learned concepts and skills to communicate mathematically • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others’ thinking • comparing varied approaches and giving and receiving feedback.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly and accurately, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals. AC9MFN01 Collections and proportions can be quantified using counting strategies. Learners: - recognise and name the number of objects within a collection up to 5 using subitising AC9MFN02 - quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning. AC9MFN03 Collections and proportions can be quantified using calculating strategies. Learners: - partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts AC9MFN04	Patterns can be identified, described, represented, generalised and classified. Learners: recognise, copy and continue repeating patterns represented in different ways including using coins.* AC9MFA01	Direct and indirect comparison can be used to describe the size of objects and events. Learners: - identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning. AC9MFM01 Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - 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	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons. AC9MFSP01 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - describe the position and location of themselves and objects in relation to other people and objects within a familiar space. AC9MFSP02	Data can be collected and acquired to investigate questions of significance. Learners: collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations. AC9MFST01	This conceptual understanding begins at year 3.

Number	Algebra	Measurement	Space	Statistics	Probability
• represent practical situations, including simple money-related situations, involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies* AC9MFN05 • represent practical situations, including simple money-related situations, that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies* AC9MFN06 Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • actively engage in class enterprise activities to collaboratively make simple financial and consumer decisions based on needs and wants.^					

* Supporting content description adapted for the SA Curriculum

^ Supporting content description created for the SA Curriculum

Mathematics – Year 1

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • form a conjecture, even when unsure whether it will be correct • revise their mathematical thinking in response to an error, difficulty or unexpected result • stay engaged when an answer or approach is not immediately clear, reconsidering their thinking and trying another way to make progress.	This disposition may be evident when learners, for example: • ask questions to draw on what others know to make progress with a mathematical problem • choose and use different approaches to a mathematical challenge when one method is not effective • select and use tools or representations that help them show or develop their mathematical thinking.	This disposition may be evident when learners, for example: • explain choices they made when solving a mathematical problem in order to recognise what helped their thinking • identify strengths and areas for growth in their mathematical learning to inform what they might do next • notice when a mathematical strategy isn't working and consider why when deciding whether to change their approach.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • exploring different representations in practical situations to refine their mathematical decision making • deciding which strategy or representation to use or experiment with to draw on previously learned concepts and skills to communicate mathematically • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others' thinking • comparing varied approaches and giving and receiving feedback.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly and accurately, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines, charts, notes and coins.* AC9M1N01 Collections and proportions can be quantified using counting strategies. Learners: - quantify sets of objects, including notes and coins, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting.* AC9M1N03 Collections and proportions can be quantified using calculating strategies. Learners: - partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones AC9M1N02	Patterns can be identified, described, represented, generalised and classified. Learners: - recognise, continue and create pattern sequences, with numbers, symbols, shapes, objects, notes and coins formed by skip counting, initially by twos, fives and tens* AC9M1A01 - recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit. AC9M1A02	Direct and indirect comparison can be used to describe the size of objects and events. Learners: - compare directly and indirectly and order objects and events using attributes of length, mass, capacity and duration, communicating reasoning. AC9M1M01 Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end AC9M1M02 - describe the duration and sequence of events using years, months, weeks, days and hours. AC9M1M03	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them. AC9M1SP01 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - give and follow directions to move people and objects to different locations within a space. AC9M1SP02	Data can be collected and acquired to investigate questions of significance. Learners: - acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols. AC9M1ST01 Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - 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	This conceptual understanding begins at year 3.

Number	Algebra	Measurement	Space	Statistics	Probability
- add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies. AC9M1N04 The “mathematical modelling process” is used to solve practical problems. Learners: - use mathematical modelling to solve practical problems, including simple money-related problems, involving additive situations; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem* AC9M1N05 - use mathematical modelling to solve practical problems, including simple money-related problems, involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem.* AC9M1N06 Financial literacy understandings and behaviours are used to make financial and consumer decisions.					

Number	Algebra	Measurement	Space	Statistics	Probability
Learners: • use enterprising behaviours while collaboratively contributing to class enterprise activities that require consumer decisions based on needs and wants^ • identify simple ways that their consumer decisions may impact themselves and others.^					

* Supporting content description adapted for the SA Curriculum

^ Supporting content description created for the SA Curriculum

Mathematics – Year 2

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • form a conjecture, even when unsure whether it will be correct • revise their mathematical thinking in response to an error, difficulty or unexpected result • stay engaged when an answer or approach is not immediately clear, reconsidering their thinking and trying another way to make progress.	This disposition may be evident when learners, for example: • ask questions to draw on what others know to make progress with a mathematical problem • choose and use different approaches to a mathematical challenge when one method is not effective • select and use tools or representations that help them show or develop their mathematical thinking.	This disposition may be evident when learners, for example: • explain choices they made when solving a mathematical problem in order to recognise what helped their thinking • identify strengths and areas for growth in their mathematical learning to inform what they might do next • notice when a mathematical strategy isn't working and consider why when deciding whether to change their approach.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • exploring different representations in practical situations to refine their mathematical decision making • deciding which strategy or representation to use or experiment with to draw on previously learned concepts and skills to communicate mathematically • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others' thinking • comparing varied approaches and giving and receiving feedback.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly and accurately, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals, number lines and money* AC9M2N01 - 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 - recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving AC9M2N03 - identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events. AC9M2M02	Patterns can be identified, described, represented, generalised and classified. Learners: 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	Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary AC9M2M01 - identify the date and determine the number of days between events using calendars AC9M2M03 - recognise and read the time represented on an analog clock to the hour, half-hour and quarter-hour AC9M2M04 - identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations. AC9M2M05	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as “opposite”, “parallel”, “curved” and “straight”. AC9M2SP01 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - locate positions in two-dimensional representations of a familiar space; move positions by following directions and pathways. AC9M2SP02	Data can be collected and acquired to investigate questions of significance. Learners: - 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 Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - 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	This conceptual understanding begins at year 3.

Number	Algebra	Measurement	Space	Statistics	Probability
Collections and proportions can be quantified using calculating strategies. Learners: • 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 • multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies AC9M2N05 • recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts AC9M2A02 • recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving. AC9M2A03 The “mathematical modelling process” is used to solve practical problems. Learners: • use mathematical modelling to solve practical problems, including real money-related problems, involving additive					

Number	Algebra	Measurement	Space	Statistics	Probability
and multiplicative situations; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation.* AC9M2N06 Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • compare the values of different goods^ • identify and use combinations of 1 and 2 dollar coins and notes to buy basic goods and services in real-life contexts^ • recognise that money is limited, comes from different sources and can be saved to meet needs and wants^ • use enterprising behaviours while collaboratively contributing to class and school enterprise activities that require consumer decisions based on needs and wants^ • identify simple ways that their consumer decisions may impact themselves, their families, the broader community and the environment.^					

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^ Supporting content description created for the SA Curriculum

Mathematics – Year 3

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: - revisit and adapt their approach in response to feedback that challenges their mathematical thinking - respond to an unsuccessful mathematical approach by reconsidering their thinking and trying another way to make progress - use mistakes as an opportunity to reconsider and continue their mathematical thinking.	This disposition may be evident when learners, for example: - use feedback to improve a mathematical calculation, method or explanation - draw on personal and peer knowledge, skills and resources to make meaning of new or unfamiliar mathematical problems - seek out worked examples, explanations or prompts that help clarify unfamiliar mathematical concepts.	This disposition may be evident when learners, for example: - consider feedback on their mathematical approach and use it to identify what to revise or build on - explain how their thinking or strategies supported their understanding of a mathematical concept, recognising what helped their learning - review how a mathematical strategy worked, consider what they learned from using it, and use this to decide whether to continue, adapt or try another approach.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: - identifying and interpreting information in routine and non-routine problems - planning, formulating and choosing strategies and representations - trialling strategies and approaches and exploring alternatives - reflecting on the reasonableness of solutions - talking through ideas and wonderings - listening to and building on others' thinking, comparing varied approaches - communicating mathematical thinking and solutions effectively.	Learners develop this capability by, for example: - connecting new ideas with what they already know - connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: - applying knowledge of mathematical facts, procedures and language flexibly, accurately and efficiently, making connections with their conceptual understanding - choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: - exploring and analysing patterns, properties and relationships when they compare and contrast related ideas - sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others - communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000 AC9M3N01 - 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 Collections and proportions can be quantified using estimating and approximating. Learners: - estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations. AC9M3N05 Collections and proportions can be quantified using calculating strategies. Learners: - add and subtract two- and three-digit numbers using place value to	Relationships can be used to solve unknowns. Learners: recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences. AC9M3A01	Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates AC9M3M01 - measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings AC9M3M02 - 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 - describe the relationship between the hours and minutes on analog and digital clocks, and read the time to the nearest minute AC9M3M04 - identify angles as measures of turn and compare angles with right	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses. AC9M3SP01 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other. AC9M3SP02	Data can be collected and acquired to investigate questions of significance. Learners: - 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 Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context. AC9M3ST02 The “statistical investigation process” can be used to address questions and inform future actions. Learners: - conduct guided statistical investigations involving	Likelihood can be explored and described. Learners: - 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 The “probability experiments and simulations process” can be used to investigate questions about uncertainty and the likelihood to determine future actions. Learners: - conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation. AC9M3P02

Number	Algebra	Measurement	Space	Statistics	Probability
partition, rearrange and regroup numbers to assist in calculations without a calculator AC9M3N03 - multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies AC9M3N04 - 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 - recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts. AC9M3A03 The “computational thinking process” can be used to explore and investigate the properties of numbers. Learners: - follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns. AC9M3N07		angles in everyday situations AC9M3M05 recognise the relationships between dollars and cents and represent money values in different ways. AC9M3M06		the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest. AC9M3ST03	

Number	Algebra	Measurement	Space	Statistics	Probability
The “mathematical modelling process” is used to solve practical problems. Learners: • use mathematical modelling to solve practical problems, including real-world financial problems, involving additive and multiplicative situations; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation.* AC9M3N06 Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • use enterprising behaviours while collaboratively contributing to class and school enterprise activities that require consumer decisions based on needs and wants^ • make financial and consumer decisions that satisfy individual needs and wants and take account of the wellbeing of others.^					

* Supporting content description adapted for the SA Curriculum

^ Supporting content description created for the SA Curriculum

Mathematics – Year 4

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • revisit and adapt their approach in response to feedback that challenges their mathematical thinking • respond to an unsuccessful mathematical approach by reconsidering their thinking and trying another way to make progress • use mistakes as an opportunity to reconsider and continue their mathematical thinking.	This disposition may be evident when learners, for example: • use feedback to improve a mathematical calculation, method or explanation • draw on personal and peer knowledge, skills and resources to make meaning of new or unfamiliar mathematical problems • seek out worked examples, explanations or prompts that help clarify unfamiliar mathematical concepts.	This disposition may be evident when learners, for example: • consider feedback on their mathematical approach and use it to identify what to revise or build on • explain how their thinking or strategies supported their understanding of a mathematical concept, recognising what helped their learning • review how a mathematical strategy worked, consider what they learned from using it, and use this to decide whether to continue, adapt or try another approach.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • planning, formulating and choosing strategies and representations • trialling strategies and approaches and exploring alternatives • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others’ thinking, comparing varied approaches • communicating mathematical thinking and solutions effectively.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly, accurately and efficiently, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns, properties and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals, including decimal currency* AC9M4N01 - find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation. AC9M4N03 Collections and proportions can be quantified using estimating and approximating. Learners: - choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions. AC9M4N07 - calculate change to the nearest 5 cents, with and without the use of digital tools.^	Relationships can be used to solve unknowns. Learners: find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations. AC9M4A01	Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - 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 - solve problems involving the duration of time including situations involving “am” and “pm” and conversions between units of time AC9M4M03 - estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle. AC9M4M04 Indirect measurement strategies can be used to quantify the size of objects using the relationships between measurable attributes to solve problems.	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects AC9M4SP01 - recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate. AC9M4SP03 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways. AC9M4SP02	Data can be collected and acquired to investigate questions of significance. Learners: - 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 Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - 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 The “statistical investigation process” can be used to address questions and inform future actions.	Likelihood can be explored and described. Learners: - 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 The “probability experiments and simulations process” can be used to investigate questions about uncertainty and the likelihood to determine future actions. Learners: - conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results. AC9M4P02

Number	Algebra	Measurement	Space	Statistics	Probability
Collections and proportions can be quantified using counting strategies. Learners: - count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines. AC9M4N04 Collections and proportions can be quantified using calculating strategies. Learners: - 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 - 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 - 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		Learners: recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal units. AC9M4M02		Learners: 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	

Number	Algebra	Measurement	Space	Statistics	Probability
The properties of number families, and the relationships between them, can be explored, used and described. Learners: - explain and use the properties of odd and even numbers. AC9M4N02 The “computational thinking process” can be used to explore and investigate the properties of numbers. Learners: - 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 The “mathematical modelling process” is used to solve practical problems. Learners: - use mathematical modelling to solve practical problems, including real-world financial problems, involving additive and multiplicative situations; 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					

Number	Algebra	Measurement	Space	Statistics	Probability
Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • make responsible financial and consumer decisions based on the wellbeing of individuals and community^ • use enterprising behaviours while collaboratively contributing to class and school enterprise activities that require consumer decisions based on needs and wants.^					

* Supporting content description adapted for the SA Curriculum

^ Supporting content description created for the SA Curriculum

Mathematics – Year 5

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • respond to unclear patterns or unexpected results by revisiting their analysis, checking assumptions and continuing to investigate • re-engage with a mathematical problem when progress stalls, using what they have learned from the attempt to decide which approach to try next • adapt their approach to a mathematical challenge, applying a range of problem-solving strategies.	This disposition may be evident when learners, for example: • identify gaps in their mathematical understanding and seek to fill them by drawing on a range of strategies • draw on the thinking of others to surface new strategies or possible approaches to a complex mathematical problem • use a range of tools, strategies or representations, identifying which best suits the demands of a mathematical problem.	This disposition may be evident when learners, for example: • reflect on previous mathematical learning to identify connections that help make sense of a new idea or problem • consider how their thinking processes helped them develop understanding or make connections between mathematical ideas • evaluate their strengths, challenges and beliefs to support their mathematical thinking.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • planning, formulating and choosing strategies and representations • trialling strategies and approaches and exploring alternatives • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others’ thinking, comparing varied approaches • communicating mathematical thinking and solutions effectively.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly, accurately and efficiently, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns, properties and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - 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 - 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 - 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 Collections and proportions can be quantified using estimating and approximating.	Relationships can be used to solve unknowns. Learners: - recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts AC9M5A01 - find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations. AC9M5A02	Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - 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 - compare 12- and 24-hour time systems and solve practical problems involving the conversion between them AC9M5M03 - estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names. AC9M5M04 Indirect measurement strategies can be used to quantify the size of objects using the relationships between measurable attributes to solve problems.	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - connect objects to their nets and build objects from their nets using spatial and geometric reasoning. AC9M5SP01 The transformation of shapes and objects can be explored, described, visualised, classified and represented. Learners: - 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 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - 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	Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made AC9M5ST02 - analyse, manage, manipulate and present consumer and financial data in different formats. ^ The “statistical investigation process” can be used to address questions and inform future actions. Learners: - 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	Likelihood can be explored and described. Learners: - list the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely. AC9M5P01 The “probability experiments and simulations process” can be used to investigate questions about uncertainty and the likelihood to determine future actions. Learners: - 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

Number	Algebra	Measurement	Space	Statistics	Probability
Learners: - check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context. AC9M5N08 Collections and proportions can be quantified using calculating strategies. Learners: - solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies AC9M5N05 - 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 - 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 The properties of number families, and the relationships between them, can be explored, used and described.		Learners: solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units. AC9M5M02		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	

Number	Algebra	Measurement	Space	Statistics	Probability
Learners: - express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another. AC9M5N02 The “computational thinking process” can be used to explore and investigate the properties of numbers. Learners: - 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. AC9M5N10 The “mathematical modelling process” is used to solve practical problems. Learners: - use mathematical modelling to solve practical problems, including real-world financial problems, involving additive and multiplicative situations; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation.* AC9M5N09					

Number	Algebra	Measurement	Space	Statistics	Probability
Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • develop simple financial plans for immediate and future needs and wants^ • apply enterprising behaviours to real-life consumer and financial contexts such as collaborating, generating ideas, creating goals and predicting outcomes^ • make responsible financial and consumer decisions, including in virtual environments, on a range of factors such as values, ethical perspectives, sustainability and personal goals.^					

* Supporting content description adapted for the SA Curriculum

^ Supporting content description created for the SA Curriculum

Mathematics – Year 6

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • respond to unclear patterns or unexpected results by revisiting their analysis, checking assumptions and continuing to investigate • re-engage with a mathematical problem when progress stalls, using what they have learned from the attempt to decide which approach to try next • adapt their approach to a mathematical challenge, applying a range of problem-solving strategies.	This disposition may be evident when learners, for example: • identify gaps in their mathematical understanding and seek to fill them by drawing on a range of strategies • draw on the thinking of others to surface new strategies or possible approaches to a complex mathematical problem • use a range of tools, strategies or representations, identifying which best suits the demands of a mathematical problem.	This disposition may be evident when learners, for example: • reflect on previous mathematical learning to identify connections that help make sense of a new idea or problem • consider how their thinking processes helped them develop understanding or make connections between mathematical ideas • evaluate their strengths, challenges and beliefs to support their mathematical thinking.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • planning, formulating and choosing strategies and representations • trialling strategies and approaches and exploring alternatives • reflecting on the reasonableness of solutions • talking through ideas and wonderings • listening to and building on others’ thinking, comparing varied approaches • communicating mathematical thinking and solutions effectively.	Learners develop this capability by, for example: • connecting new ideas with what they already know • connecting related ideas and representing concepts in different ways.	Learners develop this capability by, for example: • applying knowledge of mathematical facts, procedures and language flexibly, accurately and efficiently, making connections with their conceptual understanding • choosing and using different ways of approaching mathematical challenges flexibly, accurately, efficiently and appropriately.	Learners develop this capability by, for example: • exploring and analysing patterns, properties and relationships when they compare and contrast related ideas • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • communicating how and why their thinking has changed as a result of listening to different perspectives, new learning or information.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Collections and proportions can be quantified through understanding how the “Number” system works (Base-10). Learners: - recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane AC9M6N01 - 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 Collections and proportions can be quantified using estimating and approximating. Learners: - approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies. AC9M6N08 Collections and proportions can be quantified using calculating strategies.	Relationships can be used to solve unknowns. Learners: - find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations. AC9M6A02 Algebraic techniques can be used to describe and analyse relationships for the purposes of resolving situations. Learners: - recognise and use rules that generate visually growing patterns and number patterns involving rational numbers AC9M6A01 - 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	Direct measurement that uses either informal units, formal units or standard measurement systems, can be used to quantify the size of shapes, objects and events. Learners: - 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 - interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys AC9M6M03 - 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 Indirect measurement strategies can be used to quantify the size of objects using the relationships between measurable attributes to solve problems.	Spatial attributes can be used to explore, describe, visualise and classify shapes and objects. Learners: - compare the parallel cross-sections of objects and recognise their relationships to right prisms. AC9M6SP01 The transformation of shapes and objects can be explored, described, visualised, classified and represented. Learners: - recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometric software where appropriate. AC9M6SP03 Position, locations, pathways and arrangements can be visualised, described and represented. Learners: - 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	Data can be organised, interpreted and represented to inform and influence ourselves and others. Learners: - 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 - analyse, manage, manipulate and represent consumer and financial data and information in a range of formats.[^] The “statistical investigation process” can be used to address questions and inform future actions. Learners: - 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	Likelihood can be explored and described. Learners: - 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 The “probability experiments and simulations process” can be used to investigate questions about uncertainty and the likelihood to determine future actions. Learners: - 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

Number	Algebra	Measurement	Space	Statistics	Probability
Learners: • 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 • solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions AC9M6N05 • 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 • solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts and other purchasing decisions, choosing efficient calculation strategies and using digital tools where appropriate.* AC9M6N07 The properties of number families, and the relationships between them, can be explored, used and described.		Learners: • establish the formula for the area of a rectangle and use it to solve practical problems. AC9M6M02		• identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions. AC9M6ST02	

Number	Algebra	Measurement	Space	Statistics	Probability
Learners: • identify and describe the properties of prime, composite and square numbers and use these properties to solve problems and simplify calculations. AC9M6N02 The “mathematical modelling process” is used to solve practical problems. Learners: • use mathematical modelling to solve practical problems, including real-world financial problems, involving natural and rational numbers and percentages; 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 Financial literacy understandings and behaviours are used to make financial and consumer decisions. Learners: • create simple financial plans, budgets and cost predictions^ • apply enterprising behaviours to real-life consumer and financial contexts, such as creating goals, generating					

Number	Algebra	Measurement	Space	Statistics	Probability
ideas, negotiating and developing plans to complete tasks, and working collaboratively^ • make responsible financial and consumer decisions by using criteria and assessing the advantages and disadvantages of alternative choices, considering values, ethical perspectives, risks, safety and wellbeing, sustainability and personal goals.^					

* Supporting content description adapted for the SA Curriculum
^ Supporting content description created for the SA Curriculum

Mathematics – Year 7

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • continue with or return to a problem, calculation or algorithm when initial thinking was incorrect • share initial thinking about mathematical concepts, calculations and processes with others, even when not certain • persist through mathematical uncertainty by grappling with challenges, trying new strategies and revising their thinking.	This disposition may be evident when learners, for example: • draw on a range of mathematical strategies when a different approach may help them make progress • seek out and draw on peers’ mathematical thinking when their own approach is not making progress, using different ideas to refine or redirect their reasoning • select from a range of tools, strategies and knowledge sources to refine their thinking when working through mathematical problems.	This disposition may be evident when learners, for example: • review how different perspectives or alternative methods strengthened their understanding of a mathematical concept to inform future thinking • consider how the methods used to plan and conduct a statistical investigation affected the results, identifying possible improvements • evaluate how different representations, tools or models influenced their understanding of a mathematical concept to inform their future mathematical thinking.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • designing investigations and planning approaches to formulate situations mathematically • applying new or known strategies and established methods, and exploring alternatives • verifying and reflecting on the reasonableness of solutions • communicating solutions, and discussing ideas and wonderings • listening to and building on others’ thinking, comparing varied approaches • engaging in debates and giving and receiving feedback by sharpening each other’s arguments through constructive critiques.	Learners develop this capability by, for example: • connecting new ideas with what they already know and sharing commonalities and differences between content and concepts • interpreting mathematical information, describing thinking mathematically and representing concepts in different ways.	Learners develop this capability by, for example: • applying definitions, facts and theorems, and manipulating objects, expressions, relations and equations to find solutions and connect their conceptual understanding to learned strategies and procedures • choosing and using appropriate representations, processes and approximations, recognising robust ways of answering questions.	Learners develop this capability by, for example: • making conjectures from generalisations of patterns or relationships and evaluating conjectures through deductive reasoning and developing mathematical proofs • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • adapting the known to the unknown, comparing and contrasting related ideas and transferring learning from one context to another.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
The number system connects integers and other rational numbers through their properties and representations, including powers. Learners: - describe the relationship between perfect square numbers and square roots, and use squares of numbers and square roots of perfect square numbers to solve problems AC9M7N01 - represent natural numbers as products of powers of prime numbers using exponent notation AC9M7N02 - represent natural numbers in expanded notation using place value and powers of 10 AC9M7N03 - compare, order and solve problems involving addition and subtraction of integers. AC9M7N07 Equivalent forms express the same rational quantities and proportional relationships, even when they are written differently. Learners: - find equivalent representations of rational numbers and represent rational numbers on a number line AC9M7N04	Patterns and relationships between quantities can be expressed in different forms that reflect how quantities depend on and vary with one another. Learners: - recognise and use variables to represent everyday formulas algebraically and substitute values into formulas to determine an unknown AC9M7A01 - formulate algebraic expressions using constants, variables, operations and brackets AC9M7A02 - solve one-variable linear equations with natural number solutions; verify the solution by substitution AC9M7A03 - describe relationships between variables represented in graphs of functions from authentic data AC9M7A04 - generate tables of values from visually growing patterns or the rule of a function; describe and plot these relationships on the Cartesian plane AC9M7A05	Proportional relationships between measures preserve a constant ratio as quantities vary. Learners: - describe the relationship between π and the features of circles including the circumference, radius and diameter AC9M7M03 - use mathematical modelling to solve practical problems involving ratios; formulate problems, interpret and communicate solutions in terms of the situation, justifying choices made about the representation. AC9M7M06 Geometric relationships help determine angle and other spatial measures of shapes. Learners: - solve problems involving the area of triangles and parallelograms using established formulas and appropriate units AC9M7M01 - solve problems involving the volume of right prisms including rectangular and triangular prisms, using established formulas and appropriate units AC9M7M02	Spatial representations and transformations describe objects, position and movement in space. Learners: - represent objects in 2 dimensions; discuss and reason about the advantages and disadvantages of different representations AC9M7SP01 - describe transformations of a set of points using coordinates in the Cartesian plane, translations and reflections on an axis, and rotations about a given point. AC9M7SP03 Classification of shapes depends on their properties and relationships. Learners: - classify triangles, quadrilaterals and other polygons according to their side and angle properties; identify and reason about relationships AC9M7SP02 - design and create algorithms involving a sequence of steps and decisions that will sort and classify sets of shapes according to their attributes, and describe how the algorithms work. AC9M7SP04	Statistical representations and summaries highlight features of data distributions, where usefulness depends on the characteristics of the data and context. Learners: - acquire data sets for discrete and continuous numerical variables and calculate the range, median, mean and mode; make and justify decisions about which measures of central tendency provide useful insights into the nature of the distribution of data AC9M7ST01 - create different types of numerical data displays including stem and leaf plots using software where appropriate; describe and compare the distribution of data, commenting on the shape, centre and spread including outliers and determining the range, median, mean and mode AC9M7ST02 - plan and conduct statistical investigations involving data for discrete and continuous numerical variables; analyse	All possible outcomes of a chance event form a complete set across which probability is distributed. Learners: - identify the sample space for single-stage events; assign probabilities to the outcomes of these events and predict relative frequencies for related events. AC9M7P01 Theoretical probabilities predict the relative frequencies of repeated trials. Learners: - conduct repeated chance experiments and run simulations with a large number of trials using digital tools; compare predictions about outcomes with observed results, explaining the differences. AC9M7P02

Number	Algebra	Measurement	Space	Statistics	Probability
- use the 4 operations with positive rational numbers including fractions, decimals and percentages to solve problems using efficient calculation strategies AC9M7N06 - recognise, represent and solve problems involving ratios AC9M7N08 - use mathematical modelling to solve practical problems, including real-world financial problems, involving rational numbers and percentages; formulate problems, choosing representations and efficient calculation strategies, using digital tools as appropriate; interpret and communicate solutions in terms of the situation, justifying choices made about the representation.* AC9M7N09 Magnitude, approximation and reasonableness support the interpretation and use of number. Learners: - round decimals to a given accuracy appropriate to the context and use appropriate rounding and estimation to check the reasonableness of solutions. AC9M7N05	manipulate formulas involving several variables using digital tools, and describe the effect of systematic variation in the values of the variables. AC9M7A06	- identify corresponding, alternate and co-interior relationships between angles formed when parallel lines are crossed by a transversal; use them to solve problems and explain reasons AC9M7M04 - demonstrate that the interior angle sum of a triangle in the plane is 180° and apply this to determine the interior angle sum of other shapes and the size of unknown angles. AC9M7M05		and interpret distributions of data and report findings in terms of shape and summary statistics. AC9M7ST03	

* Supporting content description adapted for the SA Curriculum

Mathematics – Year 8

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • continue with or return to a problem, calculation or algorithm when initial thinking was incorrect • share initial thinking about mathematical concepts, calculations and processes with others, even when not certain • persist through mathematical uncertainty by grappling with challenges, trying new strategies and revising their thinking.	This disposition may be evident when learners, for example: • draw on a range of mathematical strategies when a different approach may help them make progress • seek out and draw on peers’ mathematical thinking when their own approach is not making progress, using different ideas to refine or redirect their reasoning • select from a range of tools, strategies and knowledge sources to refine their thinking when working through mathematical problems.	This disposition may be evident when learners, for example: • review how different perspectives or alternative methods strengthened their understanding of a mathematical concept to inform future thinking • consider how the methods used to plan and conduct a statistical investigation affected the results, identifying possible improvements • evaluate how different representations, tools or models influenced their understanding of a mathematical concept to inform their future mathematical thinking.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • designing investigations and planning approaches to formulate situations mathematically • applying new or known strategies and established methods, and exploring alternatives • verifying and reflecting on the reasonableness of solutions • communicating solutions, and discussing ideas and wonderings • listening to and building on others’ thinking, comparing varied approaches • engaging in debates and giving and receiving feedback by sharpening each other’s arguments through constructive critiques.	Learners develop this capability by, for example: • connecting new ideas with what they already know and sharing commonalities and differences between content and concepts • interpreting mathematical information, describing thinking mathematically and representing concepts in different ways.	Learners develop this capability by, for example: • applying definitions, facts and theorems, and manipulating objects, expressions, relations and equations to find solutions and connect their conceptual understanding to learned strategies and procedures • choosing and using appropriate representations, processes and approximations, recognising robust ways of answering questions.	Learners develop this capability by, for example: • making conjectures from generalisations of patterns or relationships and evaluating conjectures through deductive reasoning and developing mathematical proofs • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • adapting the known to the unknown, comparing and contrasting related ideas and transferring learning from one context to another.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
The number system includes rational and irrational numbers that are represented, modelled and manipulated in different forms depending on context and purpose. Learners: - recognise irrational numbers in applied contexts, including square roots and π AC9M8N01 - recognise terminating and recurring decimals, using digital tools as appropriate AC9M8N03 - use the 4 operations with integers and with rational numbers, choosing and using efficient strategies and digital tools where appropriate AC9M8N04 - use mathematical modelling to solve practical problems, including real-world financial problems, involving rational numbers and percentages; formulate problems, choosing efficient calculation strategies and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model.* AC9M8N05	Equivalent algebraic forms express the same linear relationship, even when operations change how that relationship is written. Learners: - create, expand, factorise, rearrange and simplify linear expressions, applying the associative, commutative, identity, distributive and inverse properties. AC9M8A01 Linear relationships connect changes in quantities through a constant rate of change across different representations. Learners: - graph linear relations on the Cartesian plane using digital tools where appropriate; solve linear equations and one-variable inequalities using graphical and algebraic techniques; verify solutions by substitution AC9M8A02 - use mathematical modelling to solve applied problems, including real-world financial problems, involving linear relations; formulate problems with linear functions, choosing a representation; interpret and communicate solutions in terms of the situation, reviewing the	Quantitative relationships between measures support comparison and modelling across contexts. Learners: - solve problems involving duration, including using 12- and 24-hour time across multiple time zones AC9M8M04 - recognise and use rates to solve problems involving the comparison of 2 related quantities of different units of measure, including economic and financial measures* AC9M8M05 - use mathematical modelling to solve practical problems, including real-world financial problems, involving ratios and rates; formulate problems; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model*. AC9M8M07 Geometric relationships help determine measures in irregular and composite shapes. Learners: - solve problems involving the area and perimeter of irregular and composite shapes using appropriate units AC9M8M01	Geometric properties, transformations and coordinate systems describe and classify spatial relationships in 2 and 3 dimensions. Learners: - identify the conditions for congruence and similarity of triangles and explain the conditions for other sets of common shapes to be congruent or similar, including those formed by transformations AC9M8SP01 - establish properties of quadrilaterals using congruent triangles and angle properties, and solve related problems explaining reasoning AC9M8SP02 - describe the position and location of objects in 3 dimensions in different ways, including using a three dimensional coordinate system with the use of dynamic geometric software and other digital tools AC9M8SP03 - design, create and test algorithms involving a sequence of steps and decisions that identify congruency or similarity of shapes, and describe how the algorithm works. AC9M8SP04	The strength of statistical inferences about populations depends on the quality of samples and the method of data collection. Learners: - investigate techniques for data collection including census, sampling, experiment and observation, and explain the practicalities and implications of obtaining data through these techniques AC9M8ST01 - analyse and report on the distribution of data from primary and secondary sources using random and non-random sampling techniques to select and study samples AC9M8ST02 - plan and conduct statistical investigations involving samples of a population; use ethical and fair methods to make inferences about the population and report findings, acknowledging uncertainty. AC9M8ST04 Different samples from the same population produce variation in statistical measures. Learners: - compare variations in distributions and proportions obtained from random samples of the same size drawn from a	All possible combinations of outcomes from multiple events, including complementary, form a complete set across which probability is distributed. Learners: - recognise that complementary events have a combined probability of one; use this relationship to calculate probabilities in applied contexts AC9M8P01 - determine all possible combinations for 2 events, using two way tables, tree diagrams and Venn diagrams, and use these to determine probabilities of specific outcomes in practical situations AC9M8P02 - conduct repeated chance experiments and simulations, using digital tools to determine probabilities for compound events, and describe results. AC9M8P03

Number	Algebra	Measurement	Space	Statistics	Probability
Exponential notation and laws represent multiplicative relationships and support efficient calculation. Learners: establish and apply the exponent laws with positive integer exponents and the zero-exponent, using exponent notation with numbers. AC9M8N02	appropriateness of the model* AC9M8A03 experiment with linear functions and relations using digital tools, making and testing conjectures and generalising emerging patterns. AC9M8A04	- solve problems involving the volume and capacity of right prisms using appropriate units AC9M8M02 - solve problems involving the circumference and area of a circle using formulas and appropriate units AC9M8M03 - use Pythagoras' theorem to solve problems involving the side lengths of right-angled triangles. AC9M8M06		population and recognise the effect of sample size on this variation. AC9M8ST03	

* Supporting content description adapted for the SA Curriculum

Mathematics – Year 9

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • explore mathematical ideas or methods that may need refinement despite uncertainty about whether they will be successful • revise a conjecture when examples, patterns or evidence show that initial thinking needs to change • re-engage with a complex or extended mathematical problem when progress becomes difficult, adjusting their approach while maintaining focus on the problem.	This disposition may be evident when learners, for example: • draw on others' mathematical thinking to challenge assumptions and refine their own reasoning • draw on mathematical language, representations and evidence that best help them communicate their reasoning clearly to others • apply physical and digital tools, strategies, representations and heuristics to progress mathematical thinking.	This disposition may be evident when learners, for example: • trace the sequence of their mathematical thinking to explain what led to deeper understanding of a process or its underlying logic • examine how errors, misconceptions or unexpected results contributed to their mathematical understanding and informed their next steps • consider the reasonableness of their mathematical thinking and the purpose of the approach used to decide whether adjustments are needed to achieve intended outcomes.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • designing investigations and planning approaches to formulate situations mathematically • applying new or known strategies and established methods, and exploring alternatives • verifying and reflecting on the reasonableness of solutions • communicating solutions, and discussing ideas and wonderings • listening to and building on others' thinking, comparing varied approaches • engaging in debates and giving and receiving feedback by sharpening each other's arguments through constructive critiques.	Learners develop this capability by, for example: • connecting new ideas with what they already know and sharing commonalities and differences between content and concepts • interpreting mathematical information, describing thinking mathematically and representing concepts in different ways.	Learners develop this capability by, for example: • applying definitions, facts and theorems, and manipulating objects, expressions, relations and equations to find solutions and connect their conceptual understanding to learned strategies and procedures • choosing and using appropriate representations, processes and approximations, recognising robust ways of answering questions.	Learners develop this capability by, for example: • making conjectures from generalisations of patterns or relationships and evaluating conjectures through deductive reasoning and developing mathematical proofs • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • adapting the known to the unknown, comparing and contrasting related ideas and transferring learning from one context to another.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
The real number system includes rational and irrational numbers that are represented in related forms. Learners: recognise that the real number system includes the rational numbers and the irrational numbers, and solve problems involving real numbers using digital tools. AC9M9N01	Algebraic relationships have distinct patterns of change, with equivalent forms revealing different features of the same relationship. Learners: - apply the exponent laws to numerical expressions with integer exponents and extend to variables AC9M9A01 - simplify algebraic expressions, expand binomial products and factorise monic quadratic expressions AC9M9A02 - find the gradient of a line segment, the midpoint of the line interval and the distance between 2 distinct points on the Cartesian plane AC9M9A03 - identify and graph quadratic functions, solve quadratic equations graphically and numerically, and solve monic quadratic equations with integer roots algebraically, using graphing software and digital tools as appropriate AC9M9A04 - use mathematical modelling to solve applied problems involving change, including in economic and financial contexts; formulate problems, choosing to use either linear or quadratic	Representations of measure are shaped by scale, models and measurement error. Learners: - solve problems involving very small and very large measurements, time scales and intervals expressed in scientific notation AC9M9M02 - calculate and interpret absolute, relative and percentage errors in measurements, recognising that all measurements are estimates AC9M9M04 - use mathematical modelling to solve practical problems, including real-world financial problems, involving direct proportion, rates, ratio and scale; formulate the problems and interpret solutions in terms of the situation; evaluate the model and report methods and findings.* AC9M9M05 Geometric and trigonometric relationships help determine spatial measures within shapes. Learners: - solve problems involving the volume and surface area of right prisms and cylinders	Spatial relationships can be analysed to determine what changes, what remains constant and how geometric properties are applied. Learners: - recognise the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles using properties of similarity AC9M9SP01 - apply the enlargement transformation to shapes and objects using dynamic geometry software as appropriate; identify and explain aspects that remain the same and those that change AC9M9SP02 - design, test and refine algorithms involving a sequence of steps and decisions based on geometric constructions and theorems; discuss and evaluate refinements. AC9M9SP03	The strength of statistical conclusions depends on the quality of data collection, analysis and representation. Learners: - analyse reports of surveys in digital media and elsewhere for information on how data was obtained to estimate population means and medians AC9M9ST01 - analyse how different sampling methods can affect the results of surveys and how choice of representation can be used to support a particular point of view AC9M9ST02 - plan and conduct statistical investigations involving the collection and analysis of different kinds of data, including economic and financial data; report findings and discuss the strength of evidence to support any conclusions.* AC9M9ST05 Different representations emphasise different features of data for comparison and interpretation. Learners: - represent the distribution of multiple data sets for numerical variables using comparative representations;	Compound event probabilities are determined by the outcomes and probabilities of related simple events. Learners: - list all outcomes for compound events both with and without replacement, using lists, tree diagrams, tables or arrays; assign probabilities to outcomes AC9M9P01 - calculate relative frequencies from given or collected data to estimate probabilities of events involving “and”, inclusive “or” and exclusive “or” AC9M9P02 - design and conduct repeated chance experiments and simulations, using digital tools to compare probabilities of simple events to related compound events, and describe results. AC9M9P03

Number	Algebra	Measurement	Space	Statistics	Probability
	functions; interpret solutions in terms of the situation; evaluate the model and report methods and findings* AC9M9A05 experiment with the effects of the variation of parameters on graphs of related functions, using digital tools, making connections between graphical and algebraic representations, and generalising emerging patterns. AC9M9A06	using appropriate units AC9M9M01 solve spatial problems, applying angle properties, scale, similarity, Pythagoras' theorem and trigonometry in right-angled triangles. AC9M9M03		compare data distributions with consideration of centre, spread and shape, and the effect of outliers on these measures AC9M9ST03 choose appropriate forms of display or visualisation for a given type of data; justify selections and interpret displays for a given context. AC9M9ST04	

* Supporting content description adapted for the SA Curriculum

Mathematics – Year 10

Essential Learning

Dispositions

Resilience	Resourcefulness	Reflectiveness
This disposition may be evident when learners, for example: • explore mathematical ideas or methods that may need refinement despite uncertainty about whether they will be successful • revise a conjecture when examples, patterns or evidence show that initial thinking needs to change • re-engage with a complex or extended mathematical problem when progress becomes difficult, adjusting their approach while maintaining focus on the problem.	This disposition may be evident when learners, for example: • draw on others' mathematical thinking to challenge assumptions and refine their own reasoning • draw on mathematical language, representations and evidence that best help them communicate their reasoning clearly to others • apply physical and digital tools, strategies, representations and heuristics to progress mathematical thinking.	This disposition may be evident when learners, for example: • trace the sequence of their mathematical thinking to explain what led to deeper understanding of a process or its underlying logic • examine how errors, misconceptions or unexpected results contributed to their mathematical understanding and informed their next steps • consider the reasonableness of their mathematical thinking and the purpose of the approach used to decide whether adjustments are needed to achieve intended outcomes.

Capabilities

Strategic problem solving	Developing understanding	Fluency and flexibility	Reasoning
Learners develop this capability by, for example: • identifying and interpreting information in routine and non-routine problems • designing investigations and planning approaches to formulate situations mathematically • applying new or known strategies and established methods, and exploring alternatives • verifying and reflecting on the reasonableness of solutions • communicating solutions, and discussing ideas and wonderings • listening to and building on others' thinking, comparing varied approaches • engaging in debates and giving and receiving feedback by sharpening each other's arguments through constructive critiques.	Learners develop this capability by, for example: • connecting new ideas with what they already know and sharing commonalities and differences between content and concepts • interpreting mathematical information, describing thinking mathematically and representing concepts in different ways.	Learners develop this capability by, for example: • applying definitions, facts and theorems, and manipulating objects, expressions, relations and equations to find solutions and connect their conceptual understanding to learned strategies and procedures • choosing and using appropriate representations, processes and approximations, recognising robust ways of answering questions.	Learners develop this capability by, for example: • making conjectures from generalisations of patterns or relationships and evaluating conjectures through deductive reasoning and developing mathematical proofs • sharing their mathematical thinking and reasoning, reflecting on and explaining their choices, justifying strategies used and convincing others • adapting the known to the unknown, comparing and contrasting related ideas and transferring learning from one context to another.

Knowledge

Number	Algebra	Measurement	Space	Statistics	Probability
Conceptual understandings and supporting content descriptions					
Exact and approximate representations of real numbers affect the accuracy of calculations, and the choice between them depends on purpose and context. Learners: recognise the effect of using approximations of real numbers in repeated calculations and compare the results when using exact representations. AC9M10N01	Algebraic and graphical representations and their connections show relationships, from which patterns may be generalised. Learners: - recognise the connection between algebraic and graphical representations of exponential relations and solve related exponential equations, using digital tools where appropriate AC9M10A03 - use mathematical modelling to solve applied problems involving growth and decay, including financial gain and loss, formulate problems, choosing to apply linear, quadratic or exponential models; interpret solutions in terms of the situation; evaluate and modify models as necessary and report assumptions, methods and findings* AC9M10A04 - experiment with functions and relations using digital tools, making and testing conjectures and generalising emerging patterns. AC9M10A05 Functions and inequalities maintain relationships between quantities and allow	Measurement error and scale can change the interpretation and reliability of measures. Learners: - interpret and use logarithmic scales in applied contexts involving small and large quantities and change AC9M10M02 - identify the impact of measurement errors on the accuracy of results in practical contexts, including economic and financial contexts.* AC9M10M04 Geometric and trigonometric relationships connect spatial measures within and between shapes. Learners: - solve problems involving the surface area and volume of composite objects using appropriate units AC9M10M01 - solve practical problems applying Pythagoras' theorem and trigonometry of right-angled triangles, including problems involving direction and angles of elevation and depression AC9M10M03 - use mathematical modelling to solve practical problems involving proportion and	Spatial relationships form connected mathematical structures whose properties provide a basis for logical justification and refinement of solutions. Learners: - apply deductive reasoning to proofs involving shapes in the plane and use theorems to solve spatial problems AC9M10SP01 - design, test and refine solutions to spatial problems using algorithms and digital tools; communicate and justify solutions. AC9M10SP03 Connectedness is determined by relationships and pathways between elements. Learners: - interpret networks and network diagrams used to represent relationships in practical situations and describe connectedness. AC9M10SP02	The validity of statistical conclusions depends on data quality, representation, bias and the limitations of inference. Learners: - analyse claims, inferences and conclusions of statistical reports in the media, including about economic and financial issues, where ethical considerations and potential sources of bias exist* AC9M10ST01 - plan and conduct statistical investigations of situations that involve bivariate data; evaluate and report findings with consideration of limitations of any inferences. AC9M10ST05 Comparisons of data and their representations in context can reveal patterns, variations and limitations. Learners: - compare data distributions for continuous numerical variables using appropriate data displays including boxplots; discuss the shapes of these distributions in terms of centre, spread, shape and outliers in the context of the data AC9M10ST02	Conditional probabilities depend on knowledge of the outcomes of related events. Learners: - use the language of 'if then', 'given', 'of', 'knowing that' to describe and interpret situations involving conditional probability AC9M10P01 - design and conduct repeated chance experiments and simulations using digital tools to model conditional probability and interpret results. AC9M10P02

Number	Algebra	Measurement	Space	Statistics	Probability
	manipulation into forms that are fit for purpose. Learners: - expand, factorise and simplify expressions and solve equations algebraically, applying exponent laws involving products, quotients and powers of variables, and the distributive property AC9M10A01 - solve linear inequalities and simultaneous linear equations in 2 variables; interpret solutions graphically and communicate solutions in terms of the situation. AC9M10A02	scaling of objects; formulate problems and interpret solutions in terms of the situation; evaluate and modify models as necessary, and report assumptions, methods and findings. AC9M10M05		- construct scatterplots and comment on the association between the 2 numerical variables in terms of strength, direction and linearity AC9M10ST03 - construct two-way tables and discuss possible relationship between categorical variables. AC9M10ST04	

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